

DISSERTATION ON
ASSESS THE EFFECTIVENESS OF "LAPTOP"
ASSISTED TEACHING ON KNOWLEDGE ABOUT
CARE OF PRETERM AMONG FATHERS OF
PRETERM BABIES ADMITTED IN NICU ICH AT
EGMORE, CHENNAI-8.

M.Sc (NURSING) DEGREE EXAMINATION
BRANCH –II CHILD HEALTH NURSING

COLLEGE OF NURSING
MADRAS MEDICAL COLLEGE, CHENNAI – 03.



A dissertation submitted to

THE TAMILNADU DR.M.G.R. MEDICAL UNIVERSITY,
CHENNAI – 600 032.

in partial fulfillment of the requirement for the degree of

MASTER OF SCIENCE IN NURSING

APRIL 2012

CERTIFICATE

This is to certify that this dissertation titled “Assess the effectiveness of "LAPTOP" assisted teaching on knowledge about care of preterm among Fathers of preterm babies admitted in NICU ICH at EGMORE, CHENNAI-8” Is a bonafide work done by **Mrs. FATHIMA NAYEEM** College of Nursing, Madras Medical College, Chennai – 600003 submitted to the TAMILNADU DR.M.G.R. MEDICAL UNIVERSITY, CHENNAI In Partial fulfillment of the requirements for the award of Degree of Master of Science in Nursing, Branch II, CHILD HEALTH NURSING, under our guidance and supervision during the academic period from 2011 – 2012

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ACKNOWLEDGEMENT

"Fathers' participation is essential in the newborn's evolution, for a long time we talked about the mother-child dyad, now it's about the mother-father-child triad. According to Cicero, "Gratitude is not only the greatest of the virtues but the parent of all others".

First of all I thank the god almighty for his abundant blessings showered on me which helped me to complete the study successfully

I immensely owe my gratitude and thanks to **Dr.(Miss).R.LAKSHMI, M.Sc (N), Ph.D.**, Principal, College of Nursing, Madras Medical College, Chennai-3. for her support, constant encouragement and valuable suggestions helped in the fruitful outcome of this study.

I wish to express my sincere thanks to the **DR.Mr.KANAGASABAI** Dean, Madras Medical College, Chennai-3, for provided necessary facilities and extending support to conduct this study.

I am extremely grateful to **Dr.(Mrs)P.MENAKA, M.Sc.,(N), Ph.D.**, Reader, College of Nursing , Madras Medical College, Chennai-3 for her timely assistance in guidance in pursuing the study.

I express sincere thanks to **Mrs.S.ARUL MARY M.Sc.,(N)** Head of the department (Paediatric), College of Nursing, Chennai-3, for their encouragement, valuable suggestions, support and advice given in this study, which helped me to complete the study.

I express my sense of gratitude to **Mrs.SATHYAA, M.A., M.Sc., (N)** for her valuable guidance and abundant support.

It gives me great pleasure to record a word of appreciation and extend my healthy and unlimited thanks to **Dr.(Ms)S.KUMUDHA, M.D., D.C.H.**, Additional, Professor in Paediatrics and Head of the Department- Neonatology, Institute of child health, Egmore Chennai-8 for a constant encouragement guidance and co-operation as well as for taking all the strain to guide and help at each step of this study.

I wish to express my heartfelt gratitude and indebtedness to **Dr.MANGALA BHARATHY M.D, DCH**, Assistant Professors in Paediatrics, Department of Neonatology, Institute of child health Egmore, Chennai-8 for his guidance and constant encouragement and support.

I wish to express my thanks to all **Chief and Assistant professors and post graduates** in Neonatology Unit, in Institute of child health, Chennai-8, for the support and encouragement to finish this study.

It is my pleasure and privilege to express my deep sense of gratitude to all staff nurses, especially Staff Nurse **Mrs.AKILA** in charge staff in Neonatology, Institute of Child Health Egmore, Chennai-8 for her constant support and co-operation to complete the study.

I have the special word of appreciation to **Mr.A.VENGATESAN, M.Sc M.Phil. (Statistics) P.G.D.C.A., Ph.D.**, Lecturer in Statistics, Madras Medical College Chennai-3 for guiding me in the statistical analysis and interpretation of data.

It is my pleasure and privilege to express my deep sense of gratitude to **Dr.ANITHA DAVID, M.Sc (Nursing) Ph.D.**, Sri.Ramachandra College of Nursing, Porur For validating the tool of this study

I express my thanks to **Dr.ANIGRACE KALAIMATHI, M.Sc., (N), PGDNA., DQA, Ph.D.**, Principal, Miot College of Nursing, Mugalivakkam, Chennai. For validating the tool of this study

I express my thanks to all the faculty members of the college of Nursing, Madras Medical College, Chennai-3 for the support and assistance given by them in all possible manners to complete the study.

I have no words to pen..... affection and inspiration given by my loving husband **Mr.ABDUL NAYEEM B.COM., P.G.D.I.P.** (System Management), and my sons **ALEEM and AADHIL** and my **father-in-law**. they have expressed a true display of devotion. I owe a great deal to them.

I want to give special note for my class mates and my Branch mates for their continuous guidance and enthusiastic support.

I extend my thanks to **Mr.S.RAVI, M.A., MLIS**, Librarian, College of Nursing, Madras Medical College, Chennai-3, for his co-operation and assistance which built the sound knowledge for this study.

I extend my sincere thanks to **Mrs.JEAN BOSCO M.A.,B.Ed.**, HOD English department of VATSALYA MATRICULATION SCHOOL , Chennai-11 for her expert guidance and correction in English in editing the study

I thank **Mr.AHMAD, B.Sc (Com.Sci)** Shajee Computers, Chennai-3 for his help and utilizing patience in printing the manuscript and completing the dissertation work.

As a final note, my sincere thanks and gratitude to all my friends those who directly or indirectly helped in successful completion of this study.

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ABSTRACT

This quantitative study aimed at understanding the effectiveness of Laptop assisted teaching on knowledge about care of preterm among fathers of preterm babies admitted in NICU ICH at EGMORE, CHENNAI-8. 100 fathers of preterm babies who had been in the NICU were interviewed with questioner as pretest regarding preterm care like feeding , thermo regulation, skin care, umbilical card etc. A 45 mint lecture cum demonstration given through laptop teaching programme to the fathers regarding preterm care ask them to come after 4 days and post test assessment of knowledge done with the same questionnaire .

The maximum possible score was 40. The pretest knowledge mean score was 9.95, the posttest knowledge mean score was 32.13, after laptop assisted teaching the effectiveness of mean knowledge score is 22.18.that is 55.4% of knowledge gained by fathers through laptop teaching. And significantly associated with selected demographic variables like father's age, education, previous experience and family history, fathers from joint family, and the fathers from urban have gained more knowledge than other demographic variables.

CHAPTER-I INTRODUCTION

"Every child is a blessing from heaven"

- (ROX)

Approximately 40,000 babies are admitted to Neonatal Intensive Care Units (NICU's) or Special Care Nurseries (SCN's) each year for a variety of reasons. Approximately 21,000 of these babies are born prematurely. Around 6,000 babies require critical and intensive life support each year (Laws, Grayson & Sullivan 2006).

"Children make you want to start life over."

- Muhammad Ali

Recent studies say that this is simply not true. Even slightly premature infants (34 - 36 weeks gestation) are at increased risks of certain complications after birth and suffer 2-3 times the infant mortality rate during the first year as their term cohorts. Infants born between 32-33 weeks had a six fold increase in death rates during the first year.

When a baby is premature, it is natural to feel a huge number of complex emotions. The experience is different for each family. We now clearly understand that premature infants are at a higher risk for long-term medical and developmental problems such as lung disease, poor growth, feeding problem, cerebral palsy, and learning disabilities.

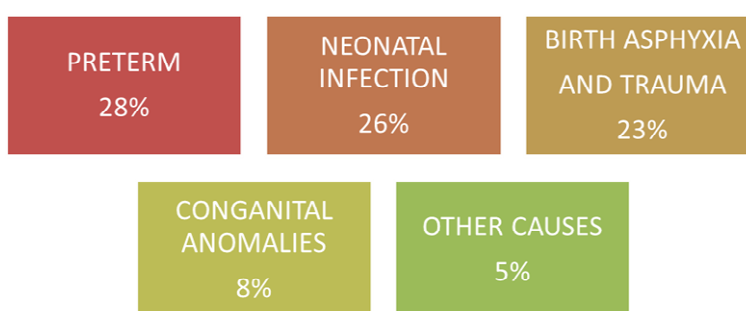
"Children are the precious gift of God. " Today's children are tomorrow's citizens and leaders"

In the present era of science and technology where quality is the supreme priority, quality of life can only be accredited by decreased morbidity and mortality rate of the new born babies. About 10-20% of Indian babies are born preterm.

Infection is an important cause of neonatal mortality in low birth weight babies. The low level of IgG Antibodies and inefficient cellular

immunity predispose them to infection. Neonatal period is a critical period for the baby to face many life threatening problems which lead to increased morbidity and mortality, if proper care is not given.

According to WHO (2005) in India the Major medical cause of neonatal mortality are preterm birth is 28%, neonatal infection 26%, birth asphyxia and trauma 23%, congenital anomalies 8%, and other cause 5%, Birth asphyxia, trauma preterm are major contributors to morbidity in Survivors.

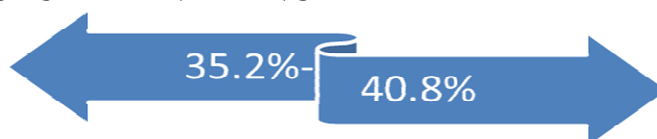


7 Million preterm babies as born India every year. In multicentric community based ICMR study, the prevalence in rural community ranged from 35.2- 40.8% in Urban slum it was 25.9 -56.9% with average of 41.4%

URBAN SLUMS PREVALENCE RATE



RURAL SLUM PREVALENCE



RATE

The birth of a premature or sick baby is a traumatic and emotional event for the parents. They will experience many emotions during this time, such as:

- ❖ Fear of losing their child and/or long term problems for their baby

- ❖ Guilt about not carrying baby to term or that they are sick
- ❖ Anger – why my baby?
- ❖ Sense of loss of a full-term/healthy pregnancy and the desired type of birth. Loss of experiences like that first hold and being discharged with their baby.
- ❖ Lack of control/powerlessness. The parents must watch as others take on the role of primary care giver to their baby.

It is also difficult for the families from lower or middle economic status of the society to meet the modern medical care expenses which mostly related for their preterm care

Educating fathers regarding preterm care have been found to be a valuable measure in reducing stress and anxiety, and improving paternal confidence in patient care giving. In fact several renowned and famous people, who were born premature, grew up to become world leaders and intellectuals, here some examples....

SOME OF THE MOST FAMOUS NAMES OF PRETERM BABIES

Johannes Kepler: German astronomer and mathematician. Born 1571.

Sir Winston Churchill: British statesman. Born 1874. Lived 91 years

Anna Pavlova: Ballerina. Born 1885. Lived 46 years.(world's most famous ballerina.)

Stevie Wonder (Stevland Morris): Singer, songwriter, producer. Born 1950(He is blind due to retinopathy)

Albert Einstein: Physicist (Nobel Prize Winner 1921). Born in. Ulm, Germany

Charles Darwin: British Naturalist: Born Feb 1809 in Shrewsbury, England. Died April 1882

John Keats: English Poet. Born 31 Oct 1795. Died 23 Feb 1821. He was one of the principal poets of the English Romantic movement.

Mark Twain: Writer. Born Nov 1835. Died April 1910. Samuel Langhorne Clemens, better known as Mark Twain

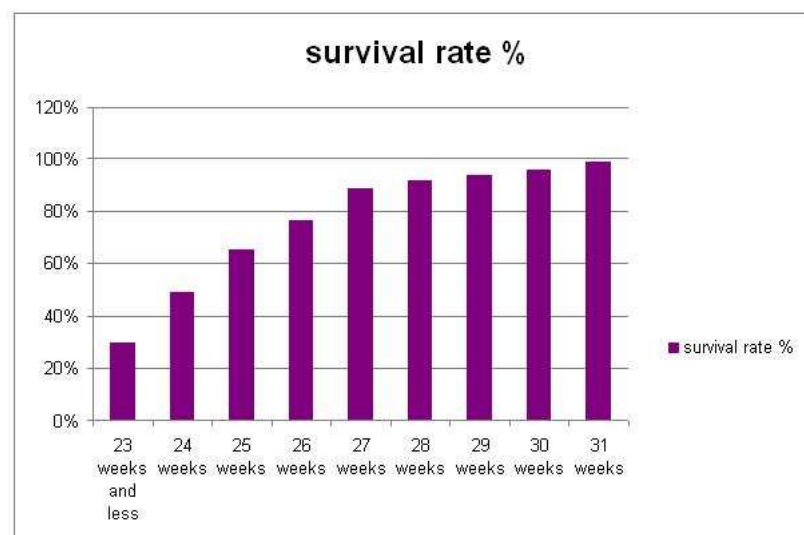
Jean-Jacques Rousseau: French writer and philosopher. Born 1712. Died July 1778.

Sidney Poitier: Award winning actor, film director and activist. Born Feb 1927. (He was the first male black actor to be nominated for an Academy Award)

Blessed indeed is the man who hears many gentle voices call him father!" -(English Saying).

So the fathers of the preterm babies should not feel sorry, and feel of despondent, because there is enough historical evidence that infant has a bright future and he/she may grow up to become an intellectual citizens. The survival rate of the baby is depend up n the gestational age, according to the Source: Neonatal Intensive Care unit Study (NICUS) data for 2001 – 2004. The survival rate as follows

Fig-1



Fathers of preterm infants had never imaged how emotional the experience of delivery will be for them; this indicates that it is not enough to prepare to become a father, but it is also important to feel mature for fatherhood (Plantin2001).thus it must be of interest to increase knowledge about the fathers' experiences of the postpartum period will facilitate the nurses' role in supporting and responding to the fathers' need (de Montigny and Lacharite, 2004). A better understanding of the initiation to fatherhood may promote a more appropriate family-centred care. Health professionals must adjust to the challenge of fatherhood and be more helpful by taking a supportive approach to facilitate the fathers participation in their new role(St.John et al.,2005).

"The greatest gift I ever had Came from God; I call him Dad!" Most of us become parents long before we have stopped being children.

(~Mignon McLaughlin, The Second Neurotic's Notebook, 1966)

About prevalence and incidence statistics in general for Premature Birth:

The word 'prevalence' of Premature Birth usually means the estimated population of people who are managing Premature Birth at any given time (i.e. people with Premature Birth). The term 'incidence' of Premature Birth means the annual diagnosis rate, or the number of new cases of Premature Birth diagnosed each year (i.e. getting Premature Birth).

STATISTIC DATA AT ICH –YEAR OF 2010

Table-1 NICU –TOTAL CENSUS-2010

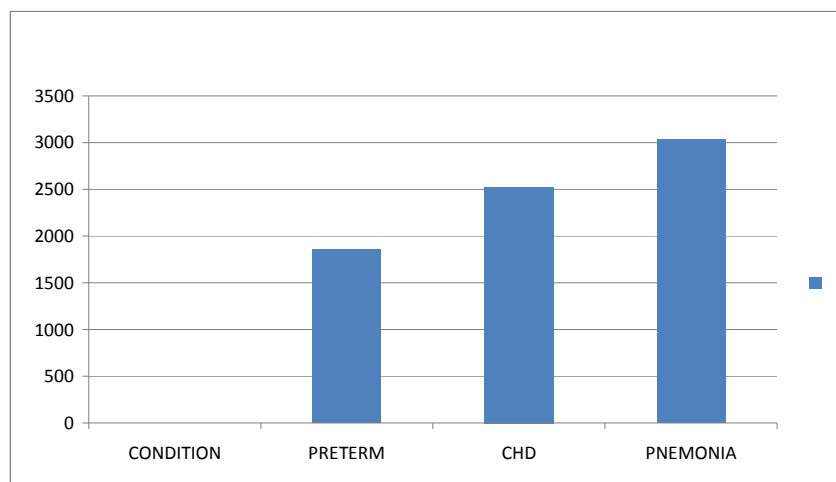
Admission	Discharge	Death	Treated	Death %	AMA
4596	3734	782	4516	17.3%	169

TABLE-2 PRETERM MORTALITY FOR 5 YEARS IN NICU – ICH,EGMORE.

YEAR	TREATED CASES	DEATH
2006	1003	457
2007	940	369
2008	1496	640
2009	1803	816
2010	1259	418

MAJOR CAUSES FOR MORBIDITY AND MORTALITY IN ICH-2010

Fig-1 (a):



S.NO.	DISEASES	TOTAL CASE	DEATH
1.	PRETERM	1857	525
2.	CHD	2531	429
3.	PNUMONIA	3036	181
4.	AGE	1697	72
5.	RHD	171	11
6.	NUTRITIONAL DEFECIENCY	507	39
7.	NEP.SYNDROME	1342	13
	CHROMOSOMAL DEFECT	149	22

NEED FOR THE STUDY

"The greatest gift I ever had Came from God; I call him Dad!"

Significant relationships were found between maternal and paternal attitudes toward father participation in child care and the amount a father participates in child care. However, only one variable paternal attitudes was a significant predictor of father participation in child care. There were no differences in paternal and maternal attitudes dependent on the status of their infant. Maternal and paternal attitudes were significantly related. Additional analyses examined the relationship of socioeconomic status and sex of the infant on father participation and the group effects of mode of delivery and parity.

MaEleanor Hollywoodrk Hollywood (2010) he did a study regarding to explore the lived experiences of fathers of a premature baby on a Neonatal Intensive Care Unit and also to raise awareness amongst healthcare professionals in relation to the needs of fathers whose infants are cared for in the NICU. He found that the Although having a premature baby is hard for both parents, the especially difficult for fathers, professionals to consider the unique perspective of fathers in the context of the NICU In highlighting the experiences of fathers.

Park (2000) stated that in India 55%-60% of infants death occurs within neonatal period, half of them die during first week of birth, first 24 hours being that the time of greatest risk. Most of the death are due to hypothermia and infection for preterm baby.

Fathers have a tendency to dwell on equipment experience, monitors, respiratory support settings, and medical tests. Asking questions about their baby's medical care , prognosis , and about follow up care, hence the nurses in the role of an investigator, took up the challenge to identify the needs of the fathers and clarify the doubt regarding preterm care, feeding, skin care, umbilical card care, thermo regulation, and follow up care in a proper manner which is make them understand the above needs

Allen & Doherty, (1996) found that the fathers want to be involved with their children but are counteracted by numerous structures and circumstances., many young fathers report that they had received virtually no professional support for their parenting, especially not from the maternal and child healthcare services. In some studies, the fathers even claim that the service providers are not only unsupportive but directly obstruct them in taking care of their children.

Even though the instruction are given to all fathers those who are waiting outside the NICU by neonatologist, father need more knowledge and information when compared to the term baby's fathers. Knowledge illuminates the way of life and eliminates the ignorance, through which one can reach one's destiny without sufferings so the investigator planned to assess the knowledge of fathers regarding preterm care.

This knowledge will help the father to take care of the mother and his preterm baby at home after discharge, so the investigator has been interested to conduct the study to find out the effectiveness of laptop teaching regarding preterm care among fathers, those preterm babies admitted in NICU ,ICH EGMORE Chennai-8.

Jenny Tohotoa,, Bruce Maycock,, Yvonne L Hauck, Peter Howat, Sharyn Burns, and Colin W Binns (2009) from their study they found that Many of the fathers felt inadequate in their lack of knowledge about this new role in their lives and some felt resentful that they were not as informed as their partners. Even though fathers had often attended antenatal education classes they still felt inadequately prepared. Men want to be part of the parenting role and need information and knowledge. This would give them the opportunity to synthesise the information and apply the knowledge to feel confident and competent in their new role as an involved parent. So the father's knowledge in preterm care is important.

The researcher was posted in NICU ICH, She noticed that the admission and death rate of preterm babies have been increasing year by year,

the knowledge regarding preterm baby care to the fathers will be helpful with the mothers will reduce the condition.

"LAPTOP TEACHING PROGRAMME" has a great influence among fathers about their knowledge to take care of preterm babies which helps in reducing the morbidity and mortality rate and thus improving the quality of life.

STATEMENT OF THE PROBLEM:

Assess the effectiveness of "LAPTOP" assisted teaching on knowledge about care of preterm among Fathers of preterm babies admitted in NICU ICH at EGMORE, CHENNAI-8.

OBJECTIVES

- 1) To assess the knowledge of the Fathers on care of preterm babies.
- 2) To assess the effectiveness of laptop assisted teaching on knowledge among Fathers on care of preterm babies.
- 3) To associate the knowledge of Fathers on preterm care with demographic variables.

HYPOTHESIS

- H1 : There is a significant relation between laptop assisted teaching and improvement in knowledge regarding preterm care among fathers having preterm babies.
- H2 : There will be a significant association between post test knowledge score of preterm care among fathers with selected demographic variables such as father's age, education, previous family history, place of resident and type of family.

OPERATIONAL DEFINITION

Preterm baby

Babies born before the gestational age of 37 weeks and weighing less than 2500 grams.

Effectiveness

It refers to the process of evaluating the outcome of planned laptop assisting teaching on preterm care among fathers have preterm babies in NICU with the statistical analysis.

Assisted Preterm Care

Refers to care of preterm babies, given or assisted with fathers it includes specific aspects of thermoregulation, skin care , eye care , umbilical cord care, elimination care , Breast feeding, prevention of infection, immunization, and follow-up care.

Laptop Assisted Teaching

It is systematically developed instruction and teaching programme in laptop, designed for a group of fathers that provide information regarding preterm care.

NICU

Refers to the level 2 care area, where the preterm newborn babies with the gestational age of less than 37 weeks are admitted. (contain monitors, incubators)

Fathers

Fathers of the preterm babies who were admitted in NICU ICH, CH-8.

Knowledge

It refers to the father's awareness about preterm care

ASSUMPTION

- 1) Fathers knowledge on preterm care can be strengthened through laptop assisted teaching programme.
- 2) Adequate knowledge on preterm care may reduce the mortality and morbidity rate of preterm babies.

LIMITATIONS

The study was limited to fathers, who Had babies born before 37 weeks of gestation and having birth weight below 2.5 kg.

Were available during the study period.

Were willing to participate in the study.

They could understand and speak Tamil, English, and Hindi.

Were admitted their preterm babies in neonatology unit, ICH Egmore.

DELIMITATION

Date collection is limited for the duration of 4 weeks

CHAPTER-II

REVIEW OF LITERATURE

Literature review is a key step in the research process. The main goal of literature review is to develop a strong knowledge base to carry out research activities in the educational and clinical practice. This chapter deals with the relevant review of literature regarding the different aspects of care of preterm babies.

Review of literature consists of two parts

PART-I: Related studies and literature review.

PART-II: conceptual frame work

Section -A: studies related to knowledge aspects of preterm care.

- 1) Knowledge of preterm baby
- 2) Assisting in feeding of the baby
- 3) Assisting in maintaining thermo regulation
- 4) Assisting in skin care of the preterm baby
- 5) Assisting in umbilical cord care
- 6) Assisting in eye care
- 7) Training the elimination(napkin care) needs
- 8) Assisting in prevention of infection
- 9) Knowledge regarding immunization
- 10) Knowledge regarding follow up care

SECTION B

Studies related to laptop teaching programme on knowledge among fathers on preterm care.

PART-I: RELATED STUDIES AND LITERATURE REVIEW

Section –A:

Studies related to knowledge aspects of preterm care

KNOWLEDGE OF PRETERM BABY

Lindberg B, Axelsson K, Ohrling K. they did a study on fathers education on preterm care, the aim of this study was to describe the experiences of being a father to a preterm babies. 8 fathers had preterm babies were interviewed using a narrative approach, and thematic content analysis was used to analyse the interviews. The fathers described that the preterm birth gave them the chance to know their infant as they had to spend time at the intensive care unit.

Moore And Kotelchuck (2004) conducted a study shows the involvement of a father in a child's life has many important benefits for the child's health and development. Greater involvement has been associated with the following Higher infant weight gain for preterm infant, improved language skills ,higher cognitive skill , improved social and adaptive behaviour, greater psychological well being, less delinquent behaviour, lower likelihood of (child) neglect.

Ted Greiner, Ph.D., (1998) the Researcher did a study to show How Can We Increase the Father's Involvement in Childcare. He found out More active male involvement will be facilitated by paternity leaves (many countries now give fathers one-two weeks paid leave at the time of delivery) and parental leaves. Several countries offer parental leaves after the period of maternity leave. In recent years about 30% of fathers take some parental leave and about 10% of all parental leave is taken by them. Though a good beginning, it will take much more than this of course to achieve a situation in which raising children does little more harm to women's careers than to men's.

Sullivan (1999), Conducted a study of Fathers are satisfied when they are given the opportunity to be with the baby, despite the difficulties of interacting with the baby in the neonatal environment. Further, a loving relationship between parents and their infants supports the emotional well-being of both of them

Magill-Evans 2006 parental education using a booklet on the capabilities of the foetus / newborn and modelling sensitive responsiveness to the foetus/newborn This was provided both individually and in groups of low-income, young, first-time fathers and reported some positive change on paternal anxiety and realistic expectations,.

Ma Eleanor Hollywood (2010) aim of his study was to explore the lived experiences of fathers of a premature baby on a The Neonatal Intensive Care Unit and also to raise awareness amongst healthcare professionals in relation to the needs of fathers whose infants are cared for in the NICU. A qualitative phenomenological approach was chosen for the study and five fathers participated and were interviewed. Data analysis was based on the work of **Van Manen (1990)** who devised a six step approach to assist with analysis within phenomenological inquiry. His findings of his study indicate that the experiences of fathers of premature babies in the Neonatal Intensive Care Unit are diverse and complex. Having a premature baby in the NICU instigates a multitude of experiences for fathers. In highlighting the experiences of fathers, this study raises awareness of the need for healthcare.

Alio Amina Ph.D., Research Assistant Professor (1998-2005) of community and family welfare AIUSA did a study among fathers who were preterm babies she declared that 'a significant proportion of infant deaths could be prevented if fathers were to become more involved. She added that when fathers are involved or present in the lives of pregnant mothers, babies fare much better.

Hyttinen M, Rautava P, Sillanp et al (1990) they did a study on young fathers' views on health education on preterm care, they did finish family competence study, 1,134 fathers were participated and answer the

questionnaire based on their education, age, occupation. Subjects were asked comment on health education intended for their childrens. The socioeconomic status and age of the father affected preference for the content and form of the child's health education.

ASSISTING IN FEEDING OF THE BABY

Alicia Dermer, MD, Anne Eglash, MD, FABM, Elizabeth Hineman, MD Amber L. Isley, MD assessed father's role in breastfeeding. As family physicians, it is important to understand and include the baby's father in the protection and support of breastfeeding. The role of a father has been shown to be one of the most powerful influences on a mother's decision to breastfeed in the United States. To support and increase breastfeeding initiation and continuation, the opinion, attitude, and the father's knowledge about breastfeeding and his relationship to his baby and the baby's mother must be considered.

Jenny Tohotoa, Bruce Maycock, Yvonne L Hauck et al.,(2009) they did the study on Mothers often need to overcome many obstacles to successfully breastfeed their babies and maintain their balance of home, family and work commitments. Evidence suggests that fathers want to be involved and be part of the parenthood process, including infant feeding. From a total of 76 participants, the major theme emerging from mothers' data identified that "Dads do make a difference". Paternal emotional, practical and physical supports were identified as important factors to promote successful breastfeeding and to enrich the experience for the mother and subsequently the father.

Chen YC, Chie WC, Chang PJ, Chuang CH, et al (2010) they did a study on infant feeding pattern associated with father's quality of life. The aim of the study was to compare the health related quality of life of fathers under different infant feeding type scenarios. 1,699 fathers were assessed with Multivariable linear regression analysis was used to explore the contribution of the other potential related factors, on fathers quality of life. Fathers involvement plays an important role in the success of breast-feeding, the

result of the study is show that the development of intervention that enable fathers to support their breast feeding partner is very important.

Linda Sweet RN/M, NICC, IBCLC, PhD, Lecturer and Philip Darbyshire Dip N(London), RNT, MN, (2008) conducted a study to explore fathers' experiences of the breast feeding of their very low birth weight preterm babies from birth to 12 months of age. A qualitative study using interpretive phenomenology. This study highlights the need to encourage and involve fathers in breast-feeding education including the impact of bottle feeding on breast-feeding outcomes. The active and positive contribution that fathers make towards preterm breast feeding should be acknowledged and encouraged

Barry AA, Smith JZ, Deutsch FM et al (2011) they did a study on Fathers' Involvement in Child Care and Perceptions of Parenting Skill Over the Transition to Parenthood. Journal of Family Issues; 32:1500-1521 This study explored first-time fathers' perceived child care skill over the transition to parenthood, based on face-to-face interviews of 152 working-class, dual-earner couples. Analyses examined the associations among fathers' perceived skill and prenatal perception of skill, child care involvement, mothers' breastfeeding. Early father involvement mediated the relationship between perceived skill before and after the birth only for fathers who supported prompt response to a crying child. Finally the authors suggest that invoking breastfeeding as an impediment to father involvement could in fact be more of a pretext than a significant reason for decreased involvement

ASSISTING IN MAINTAINING THERMO EGULATION:

Tessier R, Charpak N, Giron M, Cristo M, de Calume ZF, Ruiz-Peláez JG. (2009) they conducted a study on Kangaroo Mother Care, and in home environment fathers involvement in the first year of life :in their study compare the incubators and kangaroo mother care, fathers from 194 families in the Kangaroo Mother Care group and 144 families in the Traditional Care group were studied for thermo regulation, they found that Kangaroo mothers created a more stimulating context and a better are giving

environment than fathers in the Traditional Care group; this environment was positively correlated to father involvement .

Erlandsson (2007) Dr.Nils Bergman (2004) published his ground breaking KMC study comparing skin-to-skin contact from birth versus incubator care for premature infants in the 1200gm-2199gm weight range. The infants on skin-to-skin care showed better physiological stabilisation than the babies in incubator care. The father should not be excluded from skin-to-skin kangaroo mother care as infants stabilise as well on their father's chest as they do on their mothers chest.

Anderson: 1984; Ludington: (1990) They said the fathers and babies release oxytocin and endorphins when the infant is placed onto their chest skin-to-skin and this can prime the baby for self-latching behaviour while the mother is unavailable, Fathers can also take turns to do KMC and infants respond well when close to their fathers.

Schmidt ML Bonilha AL. (2003) they did a study on Rooming-in: the father's expectation regarding the care of his wife and child. They found that, qualitative research was conducted, 9 fathers participated in the study in Brazil . The study finding showed his expectations and fathers desire to stay together with his family and participate in rooming in the result found good.

R Tessier, N Charpak, M Giron, M Cristo, Z F De Calume, J G Ruiz-Peláez (2005) they did a study on Kangaroo Mother Care, home environment and father involvement in the first year of life , a randomized controlled study did in social security hospital in Colombia, 194 families in kangaroo mother care group and 144 families in the traditional care group ,infants kept for 24 hours day in an upright position, in skin-to-skin contact until it was no longer tolerated by the infants. they found that Kangaroo Mother Care has a positive impact on home environment with father's involvement. The results also suggest, first, that both parents should be involved as direct caregivers in the Kangaroo Mother Care procedure. This environment was positively correlated to father involvement and , the family environment of male infants was most improved by Kangaroo Mother Care.

ASSISTED IN SKIN CARE

Mackereth PA. (2003) he did a study regarding teaching fathers to do baby massage. The researcher focus in the discussion on teaching fathers attended the classes over a 6 month period. Recommendation are made in the conclusion, identifying possible ways of promoting fathers involvement in babies massage. It effective in promoting the babies health and increase the weight of the baby in selected period.

Peter A Mackereth (2000) he did a study on: teaching fathers baby massage the investigator gave the training to the fathers for 6 month duration in Sister Neonatal Intensive Care, St. Mary's Hospital, Manchester, he found that the identifying possible ways of promoting fathers involvement in babies massage. The paper, with its images of a father engaged in baby massage, is intended to add to the current limited amount of literature available on this subject.

Jill Irving RN (Adult), RN (Child), RM, Health Visitor, JP (2010) she did a study on baby massage to improved skin care she found that a regular massage is a great way to help dads and their babies to feel closer. Fathers could make a massage part of baby's bedtime routine

Fenwick et., al., 1999, 2001a, 2001 he did a study on Neonatal nurses, however, play a pivotal role in facilitating the attachment process by promoting early parent-infant contact through encouraging parents to touch, hold and care for their infant (***Smith, 1996***) as well as establishing collaborative and positive relationships with the parents

Kim Scholz Curtis A. Samuels (1996) they did a study on effectiveness of the fathers body massage to their preterm babies, 32 fathers were selected and baby massage demonstrated for 4 weeks. researcher found that treatment group infants greeted their fathers with more eye contact, smiling, vocalising, reaching, and orienting responses and showed less avoidance behaviours. As well, in a 10 minute observation, the treatment group fathers showed greater involvement with their infants than comparison

group fathers. Which would assist in the establishment of a positive bond between the first-time fathers and their infants.

KNOWLEDGE IN IMMUNIZATION

Universidade Federal do Rio de Janeiro, Brasil **arc H. Bornstein (2010)** did a study on Parenting knowledge regarding immunization concerns child development, health and safety, and strategies to meet the physical, biological, socioemotional, and cognitive needs of children. The average knowledge score obtained by mothers was significantly greater than the average score obtained by fathers regarding immunization. For mothers, education and child age predicted knowledge score, but for fathers only education predicted knowledge score.

Brugha RF, Kevany JP, Swan AV.(2010) find the effectiveness of Mothers, but not fathers, are the usual focus of strategies to maximize immunization coverage in low income countries. A study of the immunization determinants of children aged 12-18 months was conducted in 1991 in the Eastern Region of Ghana using structured interviews of a population sample of 294 mothers and 170 (67%) of the children's fathers. Fathers were more likely than mothers to perceive that the fathers had participated in the decision to send children for immunizations. Where both parents reported that the father had participated in the decision: The results of the study suggest that, where fathers have a higher level of education, programmes which are designed to involve them in decisions about their children's use of preventive health services have the potential to increase timely immunization coverage levels

Shawn Pohlman, assistant professor of nursing at University of Missouri-St. Louis, suggests fathers of preterm babies often feel intimidated by the technology attached to their babies in the NICU and frustrated by a sense of helplessness. For her paper, "Fathering and the Technological Imperative of the NICU: An Interpretive Inquiry," Pohlman interviewed nine fathers of preterm babies born at less than 33 weeks at three Midwestern hospitals. She followed their progress for nearly eight months. Fathers may

feel powerless in the NICU because the level of technology puts a huge distance between the parent and the baby," said Pohlman. "Since there is very little research on fathers compared to mothers -- especially of premature babies -- I wanted to give them a voice."

ASSISTED IN UMBILICAL CARE

Benett J, Mac C. et al (2000) evidenced that the effect of applying ghee over the umbilical wounds of neonates, and have documented that such applications are a risk factor for neonatal tetanus.

Baker SF, Smith BJ et al (2003) DESCRIBED CURRENT SKIN CARE PRACTICES FOR PRETERM INFANTS. A Total Of 305 Surveys Were conducted. Out of this 241 of the respondents were reported that nothing special should be applied to the baby skin.

Monsoon k. a, Bare et al (2000) reported that provision of base line information about skin care practices in premature low birth weight infants. 50 fathers were interviewed the results showed that more than 90% of the fathers had no skin care protocols at all. There was no considerable variation with respect to common procedure like bathing and diaper rash.

PREVENTION OF INFECTION

Benett J, MAC et al (2000) evidenced that the effect of applying ghee (clarified butter) over the umbilical wounds of neonates, and have documented that such applications are a risk factor for neonatal tetanus.

Who Bulletin 1995 Environmental hygiene and personal hygiene are the two important aspects to be taken care of while feeding infants.

Bern et al (1992), unprotected water supply, poor environmental sanitation and unsafe sewage disposal increase incidence of bottle feeding, and contamination of home made complementary feed are some of the important predisposing factors leading to higher incidence of diarrheal disease in developing world.

Aiman L, Cimiotti J, Larson E (2010) they did a study on prevention of infection in NICU through proper hand washing of the parents and medical personal working in NICU they did a study for 42 hours in NICU, the researchers observed more than 1400 touches of a patient or the surrounding environment, with 55% made by nurse, 20% by physicians, 17% by visitors, and 8% by other healthcare workers. However, only 28% of these touches occurred in compliance with hand hygiene protocol, with either a clean hand or clean gloves. Results show suboptimal adherence to hand hygiene protocols in the high-risk area of the NICU. Administrative support, oversight of infection rates, and ongoing education may help to increase awareness of the importance of hand washing among the hospital staff and parents. In addition, use of alcohol-based hand rubs for hand cleaning is recommended.

ASSISTED IN FOLLOW UP CARE

Author: Michael P Sherman, MD; Chief Editor: Ted Rosenkrantz, MD (2011) they did a study on Follow up of the NICU patient in their study they told that A structured teaching plan must be individualized for the primary caregivers to educate them in the infant's care. Each infant has unique needs, and the education program should be directed at those needs. The goal of this education is to ensure that the parents are capable and confident in caring for their infant at home. This is probably a good practice for all families before they go home with their infant but is especially important for infants who have ongoing, complex problems. Home visits by experienced home health care professionals and/or follow-up telephone calls are essential for the success of the transition process.

SECTION –B: STUDIES RELATED TO LAPTOP TEACHING

Sterlingberg et al (1996) reported that laptop education lie on acceptable and effective strategy when used in conjunction with other method varying the medium for education will meet the unique learning needs of more patients.

Ganglione's (1988) states critical assessment on the use of vedio media for patient education state that vedio is good as more effective in increasing short term knowledge, promote compliance with medical regimen.

Navarre et al (2007), Ernest et.al (1999), Stellfson et.al (2009), All are studied about the effectiveness of laptop teaching regarding their field found out the beneficent of the study through effective outcome.

Lindberg I, Christensson K, Ohrling K. et al (2009) did the study on to describe parents experiences of using videoconferencing when discharged early from NICU. A combination of quantitative and qualitative methods was used to describe parents experiences. The findings of the study indicate that video conferencing may be helpful for parents discharged from hospital early after childbirth.

Brown J. V, Larossa M. M et al (1998) found that the effect of written material (leaflet) on preterm care among 60 care givers. The results revealed that increased the knowledge among the intervention group than control group.

Barrera M.E, Rosenbaum P. L et al (1996) has assessed the effectiveness of parents education intervention programme regarding preterm care. One hundred parents were randomly selected for the control and excremental group. The result showed that majority of the parents (78%) in the intervention group significantly improved their knowledge.

John Hoffman (2007) He did a study on , Effects of Parent Education on First-time Father's Skills in Interaction with Their Infants, University of Calgary researcher Karen Benzies (Nursing) tested the effectiveness of video-coaching as a way to teach parent/baby interaction skills to new fathers. One hundred and sixty-two fathers were randomly assigned to two groups. The intervention group received two home video coaching sessions when their babies were five and six months old. Fathers were videotaped while teaching their babies how to play with a toy provided by a trained home visitor. Most of the fathers said they liked getting the video feedback and also liked the fact that we paid attention and were interested in what they were doing with their babies," says Magill-Evans. "And we did find that the intervention led to a significant improvement in fathers' interaction skills. So we're encouraged to continue with this line of research which we hope will lead to the development of an intervention that can be targeted specifically to fathers of preterm babies."

PART-II: CONCEPTUAL FRAMEWORK

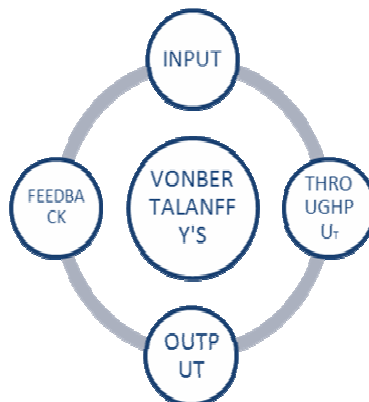
The conceptual framework is based on the Ludwig von Bertalanffy's grand system theory of law.

Ludwig von Bertalanffy's General Systems Theory (1968) is known in various areas of in health care sciences, such as health care practices and in nursing. Bertalanffys system theory provides new development and foundations. This means that in modern health care delivery, new theories can be introduced to form modern approaches to improve the general system through better information, communication and feedback. However, the theory acknowledges the challenges that may come along with the implementation of new general models. In this study modernized device (laptop) was applied to teach the fathers of preterm babies regarding preterm care .

Currently nurses rely on models and theories that have been applied by other specialists in governing nursing practices within the unit of a family.

General system theory of systems would be a useful tool providing, on the one hand, models that can be used in, and transferred to, different fields, and safeguarding, on the other hand, from vague analogies which often have marred the progress in these fields.

VON BERTALANFFY'S explained that any system has 4 major aspect



INPUT

It is the type of information, the input is the assessment of existing level of knowledge regarding preterm baby care among fathers with 10 aspects, like preterm care, feeding, eye, skin, umbilical cord care, immunization and followup care etc...

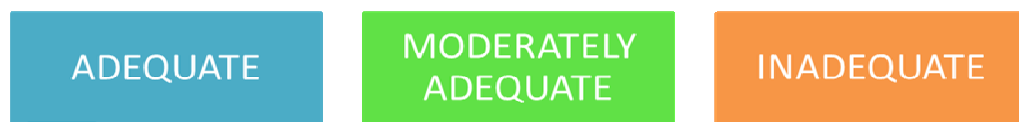
1. Preterm care
2. Assisting in feeding of the baby
3. Assisting in maintaining thermo regulation
4. Assisting in skin care of the preterm baby
5. Assisting in umbilical cord care
6. Assisting in eye care
7. Assisting in maintaining the elimination(napkin care) needs.
8. Assisting in prevention of infection
9. Knowledge regarding in immunization
- 10 Knowledge regarding follow up care

THROUGHPUT

It is the operation phase or manipulation and activity phase. It is the process that allows the input to be changed, in the study throughput is the laptop teaching programme regarding preterm care to fathers.

OUTPUT

It is any information that leave the system and extends the environment through system boundaries. It is level of knowledge either.

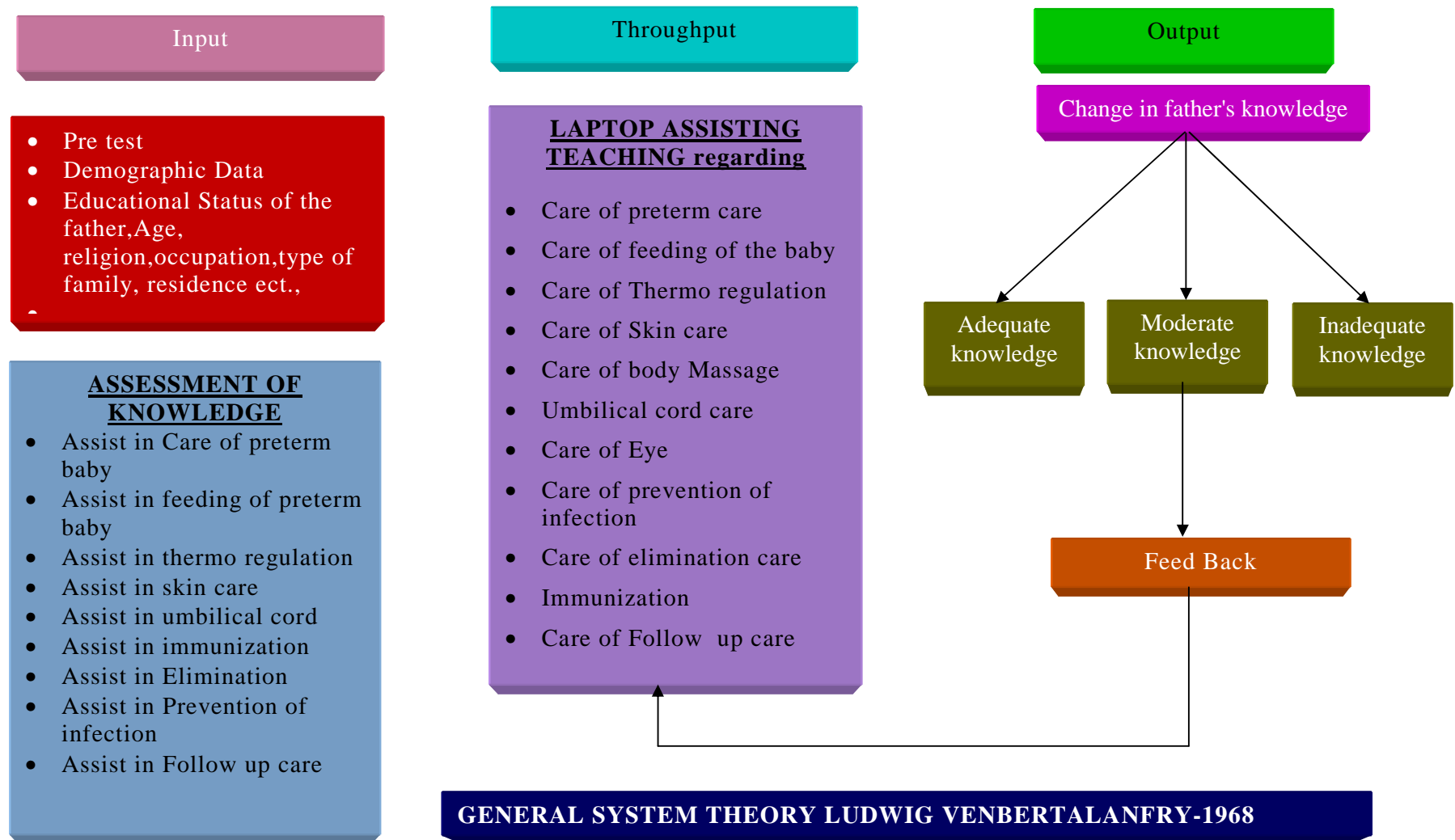


Knowledge after laptop teaching programme.

FEEDBACK

It is the process by which information is received from each of the level of the system, which is feed back into the input to guide evaluation. This will give the allow to either increase or restrict its input, of the output, the evaluation done by the same questionnaire and the result is indicate the need for follow up care in home set up. Feedback strengthen the INPUT.

FIG-2: CONCEPTUAL FRAME WORK



CHAPTER-III METHODOLOGY

This chapter includes research design, setting of the study, population, sample size, sampling technique, inclusion and exclusion criteria for selection of sample, description of tool, content validity, pilot study, data collection procedure and plan for data analysis.

RESEARCH APPROACH

In this study, the investigator sought to determine the effectiveness of laptop teaching programme on knowledge among fathers on preterm care. For this study quantitative approach was found to be appropriate.

RESEARCH DESIGN

The research design selected for the study was the pre- experimental design to assess the effectiveness of laptop teaching programme on knowledge among fathers on preterm care.

SETTING OF THE STUDY

The study was conducted in neonatology unit, institute of child health (ICH), EGMORE CHENNAI-8. Which is attached to Madras Medical College, ch-3, this is a 764 bedded hospital give treatment of children from newborn to adolescent various part of the Tamil Nadu and near by states. ICH the NICU bed strength is 40, daily admission will be 10 to 15.

POPULATION

The population of this study is about the fathers who were having preterm babies and admitted in neonatology unit, institute of child health EGMORE, CHENNAI-8.

SAMPLE SIZE

The sample comprises of 100 fathers who were having preterm babies admitted in neonatology unit of institute of child health at ICH, Egmore.

SAMPLING TECHNIQUE

Convenient sampling technique was used for sampling based on inclusion and exclusion criteria.

CRITERIA FOR SAMPLE SELECTION

Inclusion criteria

The fathers who

- ❖ Had the preterm babies born before 37 weeks and with an weight below 2.5 Kg.
- ❖ Were selected the discharge day of their preterm infant.
- ❖ Were available and willing to participate in this study.
- ❖ Can understand and speak Tamil, Hindi, English.

Exclusion criteria

The fathers who

- ❖ Had sick and ventilator supported preterm babies.
- ❖ Had babies with congenital anomalies.
- ❖ Were not willing to participate in the study.
- ❖ Do not know or speak Tamil, Hindu, and English.

DESCRIPTION OF THE INSTRUMENT:

The structured interview questionnaire was prepared by the investigator based on the extensive review of literature expert's and investigators personal experience.

The structured interview questionnaire consists of two sections

SECTION-1

It deals with the demographic variables of the subject that includes father's age, religion, occupation, education type of family, and area of residence. Family history, availability of leave or permission from working place.

SECTION-2

It consists of multiple choice questions which were prepared to assess the knowledge among father's on preterm care.

The questions were related to knowledge aspects of preterm care, thermoregulation, assisted in feeding, skin care, umbilical cord care, elimination care, immunization, and follow up care.

SCORE INTERPRETATION

An interview schedule was used to assess the knowledge among fathers on preterm care. It contains 40 multiple choice questions with 10 sub division.

S. No.	Knowledge Aspects	Total no of items	score
1.	preterm care	4	4
2.	Assisting in feeding of the baby	4	4
3.	Assisting in maintaining thermo regulation	4	4
4.	Assisting in skin care of the preterm baby	4	4
5.	Assisting in umbilical cord care	4	4
6.	Assisting in eye care	4	4
7.	Assisting in maintaining the elimination(napkin care) needs.	4	4
8.	Assisting in prevention of infection	4	4
9.	Knowledge regarding in immunization	4	4
10	Knowledge regarding follow up care	4	4
Total		40	40

The scores given for preterm care are as follows

For correct answer - '1' score.

For wrong answer - '0' score.

Based on the scores, the level of knowledge on preterm care are,

Inadequate knowledge - 50% (or) less than 50%

Moderate knowledge - 51%-75%

Adequate knowledge - More than 75% score.

CONTENT VALIDITY AND RELIABILITY

The structured interview questionnaire and laptop teaching programme was validated for its content by experts in the Department of Neonatology and the department of child health Nursing. The study reliability of the tool was assessed by using Test retest method. Knowledge score reliability correlation coefficient value is 0.81. This correlation coefficient is very high and it is good tool for assessing effectiveness of "LAPTOP" assisted teaching knowledge about care of preterm among Fathers of preterm babies.

PILOT STUDY

It is the preliminary trial to the actual study. The pre test was conducted for 10 fathers of preterm babies in the Neonatology unit, Institute of child Health EGMORE, Chennai-8. Pre test done on the day of discharge by using the planned interview schedule after pretest. 45 mints 'LAPTOP' teaching programme on preterm care given to fathers by using pictures, broacher and demonstration.

After 5 days, the fathers were instructed to come for post test in the out patient department of NICU at well baby clinic and assess the knowledge with same questionnaire. There was no modification done in the tool after the pilot study these samples not included in main study.

DATA COLLECTION PROCEDURE

Permission was obtained from the director and the head of the department of neonatology unit, for conducting the pilot study and main study. The data collection was done in the period from 29.08.2011 to 28.09.2011. A convenient sampling technique was used to select the samples from NICU, EGMORE CH-8, based on inclusion criteria. Approximately 5 fathers were identified and selected on the particular day. The Investigator first established a good rapport with the father of the preterm neonates. The purpose of the interview was explained to each father. Each father was interviewed separately in their own language in a separate place. An average time limit of 20-25 minutes were taken for each sample for the interview schedule. After the pre test the fathers were gathered and seated comfortably

at well baby clinic and 20-25 minutes laptop teaching given to the fathers with appropriate slides, pictures and demonstration,. The laptop teaching programme contained information regarding preterm care includes knowledge aspects of preterm care, thermoregulation, feeding , skin care, umbilical cord care, eye care immunization danger signs and follow up care, etc., brochures was given to fathers for further details.

After the laptop teaching 15 minutes were allotted for discussion. The post test was conducted by the investigator after four days using the same questionnaire, in the well baby clinic at NICU.

ETHICAL CONSIDERATION

The investigator ensured that privacy, dignity, religion, cultural belief and ethical values were respected during the process of data collection.

PLAN FOR DATA ANALYSIS

After scoring the results were tabulated. Both descriptive and inferential statistics are employed to analyzed collected data.

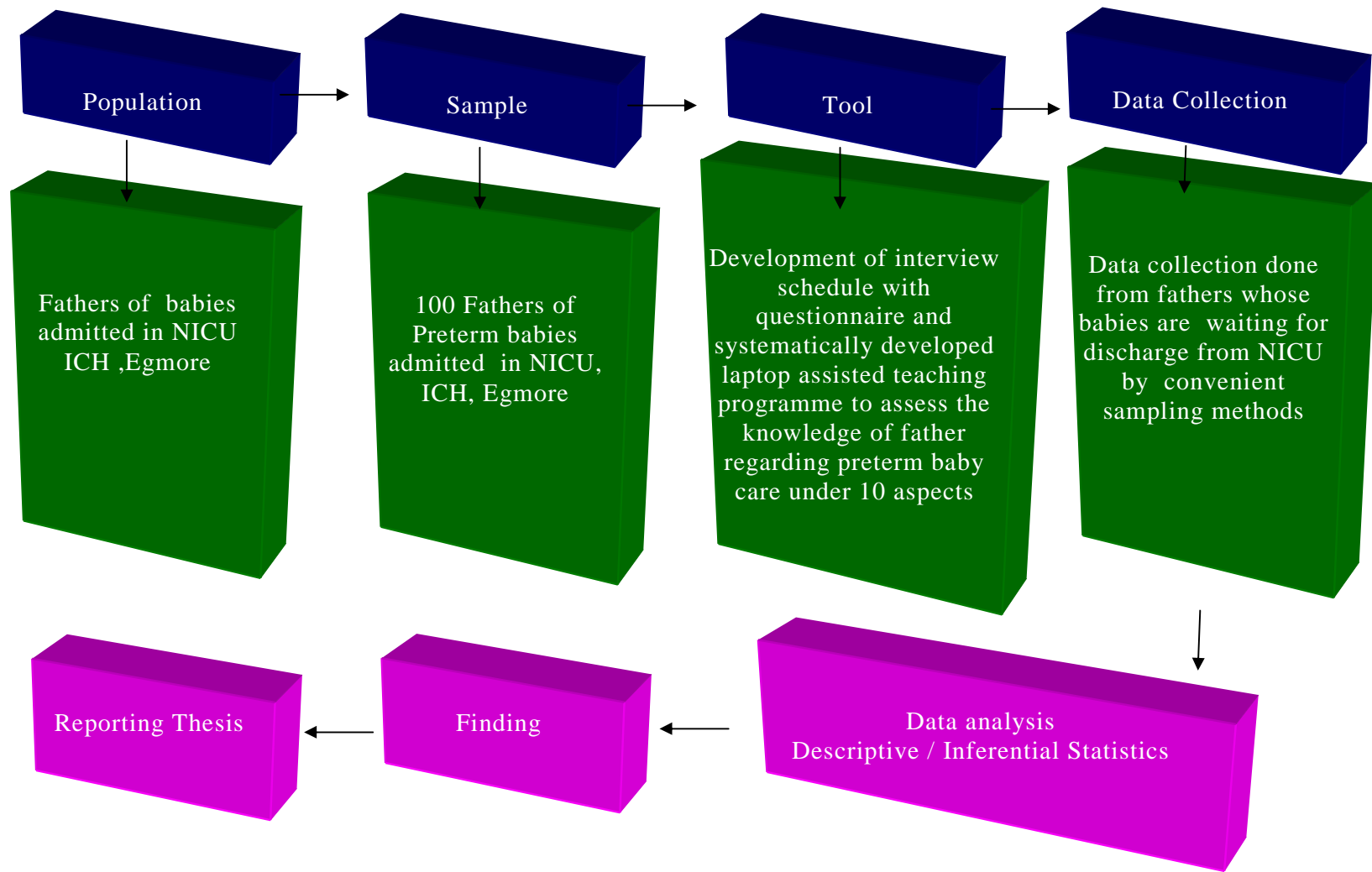
DISCRIPTIVE STATISTICS INCLUDES

- ❖ Demographic variables were given in frequencies with their percentage and test of association was done the assess selected demographic data to knowledge.
- ❖ Mean is used to analysis the data.

INFERENTIAL STATISTICS INCLUDES

- ❖ 'Chi Square' test is used to find out significant association between programme.demographic variables and knowledge scores.
- ❖ PAIRED 't' test is used to analyse effectiveness of LAPTOP teaching programme.

FIG-3: SCHEMATIC REPRESENTATION



CHAPTER-IV DATA ANALYSIS AND INTERPRETATION

TABLE 4: DEMOGRAPHIC PROFILE

Demographic variables		No. of fathers	%
Age	20 -22 yrs	13	13.0%
	23 -25 yrs	60	60.0%
	26 -35 yrs	27	27.0%
Education	No formal education	5	5.0%
	Primary school	38	38.0%
	High school	44	44.0%
	UG/PG	13	13.0%
Religion	Hindu	75	75.0%
	Muslim	12	12.0%
	Christian	13	13.0%
Occupation	Employed	96	96.0%
	Un employed	4	4.0%
Type of family	Joint family	26	26.0%
	Nuclear family	74	74.0%
Place of residence	Rural	57	57.0%
	Urban	43	43.0%
Previous Experience	Yes	12	12.0%
	No	88	88.0%
Illness	DM	1	1.0%
	TB	1	1.0%
	Heart disease	1	1.0%
	Nil	97	97.0%

Demographic variables		No. of fathers	%
Habits	Smoking	29	29.0%
	Alcoholic	14	14.0%
	Drug	0	0.0%
	Nil	57	57.0%
Learned	Physician	11	11.0%
	Nurses	19	19.0%
	Household members	70	70.0%
Income	< Rs.5000	11	11.0%
	Rs.5001 - 10000	63	63.0%
	Rs.10001 - 15000	26	26.0%
Source of information	Books	10	10.0%
	TV	30	30.0%
	Friends/Relatives	60	60.0%
Gestational age	28 -30 wks	16	16.0%
	31 -33 wks	14	14.0%
	34 -37 wks	70	70.0%
Family_history	Yes	10	10.0%
	No	90	90.0%
Permission at working place	Yes	18	18.0%
	No	82	82.0%

Table 1 shows the demographic information of preterm babies fathers those who are participated in this study” A study to assess the effectiveness of "LAPTOP" assisted teaching on knowledge about care of preterm among Fathers of preterm babies admitted in NICU ICH at EGMORE, CHENNAI-8.

”Out of 100 fathers majority of fathers (60%) were in the age group of 23-25 years and 27% of the fathers from the age group of 26 -35 years, only 13% fathers from the age group of 20-22 years.

Regarding educational status 44% of the fathers had higher secondary education, nearly 5% of the fathers were illiterate, nearly 38% of the fathers finished their primary school education, around 13% fathers were graduates.

Three fourth of the fathers that is nearly 75% of the fathers belong to Hindu religion, 12% were Muslims and 13% fathers were belong to Christian.

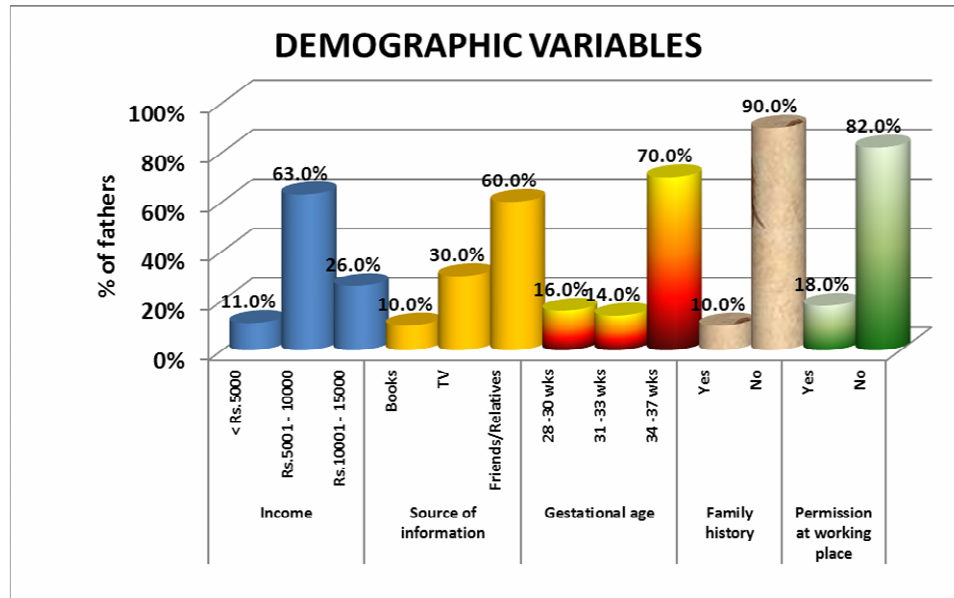
Most of the fathers 96% were employed, and only 4% fathers were unemployed. Nearly 74% belonging to nuclear family , and 26% belonging to joint family. Nearly 57% of the fathers from rural area, and 43% of the fathers from urban area.

In this study nearly 88% of the fathers not having previous experience on preterm baby care, only 12% fathers had experience to take care of preterm babies. Almost all fathers nearly 97% were in good health, only 3% fathers have some illness. According to this study nearly 29% of the fathers were smokers, 14% fathers were alcoholic (mostly they have occasionally), nearly 57% of the fathers don't have any habits.

Around 70% of the fathers learned preterm care from family members, nearly 63% of the father's family income is from rupees 5001 to 10,000 rupees. Most of the fathers that is 60% were got the information about preterm care from friends/ relatives.

In this study 70% of the fathers (those who are participated) babies born between 34 to 37 weeks. Ten percent fathers only had the family history of preterm babies, and the 82% of the fathers do not get permission or leave to take care of their preterm babies from their working place.

FIG-4



According to fig-4 nearly 11% of the father's income is below 5000 Rs, 63% of the father's income is between Rs 5001 to 10,000, nearly 26% of the father's income is between 10001 to 15,000Rs.

According to the father's source of information nearly 10% of the fathers got information regarding preterm through books, most of the fathers that is 60% of the fathers learned from their friends and relatives, remaining 30% of the fathers knew from mass media.

From 100 babies 70% of the baby's gestational age was 34-37 weeks, nearly 16% of the babies gestational age was 28-30 weeks, 31 to 33 weeks of babies were around 14%.

According to previous history of preterm in family is only 10% other 90% family not had the history of preterm

FIG-5

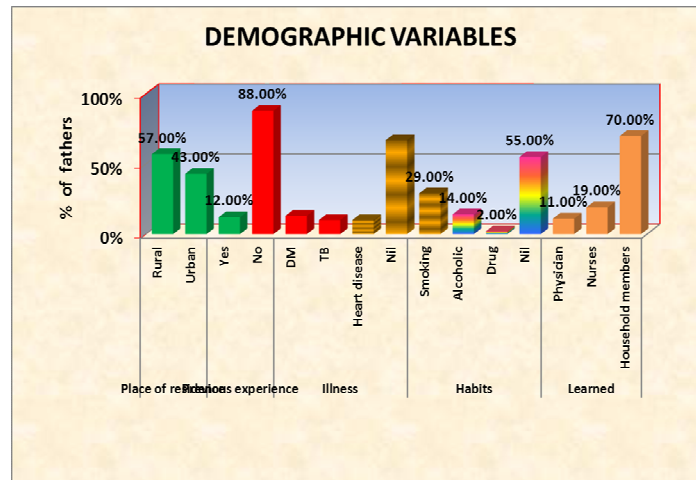


Fig-5 shows the demographic variables of the fathers –nearly 57% of the fathers from rural area and the 43% of the fathers came from urban , 88% of the fathers did not having previous experience of care of preterm babies, 97% of the fathers are healthy, 55% of the fathers having did not having any habits , 29% of the fathers having the habit of smoking, 70% of the fathers learned the preterm care from elders or through their household members like aunt and eldersisters etc.,

FIG-6

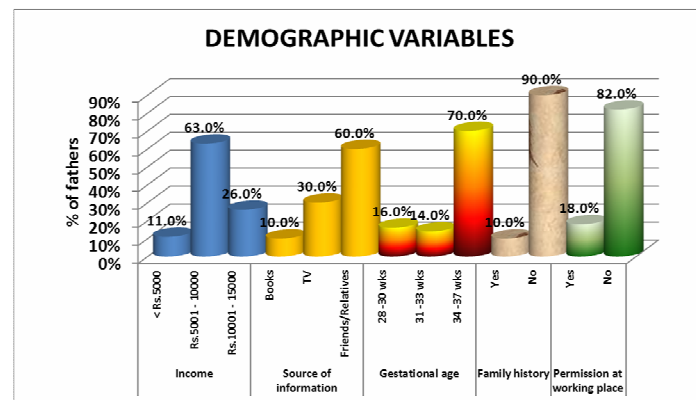


Fig-6 shows that the 63% of the father's income rupees from 5001-10,000, 11% of the father's income , nearly 70% of the babies born between 34-37 weeks of gestational age, 90% of the fathers did not have any family history of preterm baby, nearly 82% of the fathers will get permission from the working place to look after the baby.

SECTION-II

Table 5: Each domain wise pretest percentage of knowledge

Knowledge regarding	No. of questions	Min –Max score	Knowledge score	
			Mean±SD	%
Preterm care	4	0 -4	1.14±0.65	28.5%
Feeding of baby	4	0 -4	1.04±0.75	26.0%
Thermo regulation	4	0 -4	0.95±0.69	23.8%
Skin care	4	0 -4	1.16±0.68	29.0%
Umbilical cord care	4	0 -4	0.82±0.73	20.5%
Eye care	4	0 -4	1.09±0.75	27.3%
Elimination needs	4	0 -4	0.87±0.73	21.8%
Prevention of infection	4	0 -4	0.94±0.69	23.5%
Immunisation	4	0 -4	0.89±0.83	22.3%
Followup	4	0 -4	1.05±0.64	26.3%
OVERALL	40	0 -40	9.95±2.11	24.9%

Table 2 shows each domain wise pretest percentage of knowledge of fathers on preterm care. They are having maximum knowledge in skin care (28.5%) and minimum knowledge in Umbilical cord care (20.5%). In overall 25% of fathers having knowledge on preterm care.

Table 6: Pretest level of knowledge

Level of knowledge	No. of fathers	%
Inadequate knowledge (50 or Less than 50%)	90	90.0%
Moderate knowledge (51%-75%)	10	10.0%
Adequate knowledge (>75%)	0	0.0%
Total	100	100%

Table 3 shows, fathers level of knowledge on care of preterm.

In general 90.0% of the fathers have inadequate knowledge, 10% of them having moderate knowledge and none of them having adequate knowledge.

CRITERION MEASUREMENTS- MAXIMUM MARKS- 40

S. No.	Grade	Percentage	Marks
1.	Adequate knowledge	76 – 100%	31-40
2.	Moderate knowledge	51 – 75%	21-30
3.	Inadequate knowledge	0 – 50 %	0- 20

In this study the total mark is 40. If the fathers answers 31 to 40 questions correctly then they are considered as have adequate knowledge fathers, those who are answered 21 to 30 questions correctly they considered as moderate knowledge fathers, and the fathers can answer only 20 questions they are considered as inadequate knowledge fathers

Table 7: Each domain wise posttest percentage of knowledge

Knowledge regarding	No. of questions	Min –Max score	Knowledge score	
			Mean±SD	%
Preterm care	4	0 -4	3.31±0.83	82.8%
Feeding of baby	4	0 -4	3.22±0.91	80.5%
Thermo regulation	4	0 -4	3.28±0.78	82.0%
Skin care	4	0 -4	3.34±0.77	83.5%
Umbilical cord care	4	0 -4	3.23±0.85	80.8%
Eye care	4	0 -4	3.19±0.93	79.8%
Elimination needs	4	0 -4	3.20±0.85	80.0%
Prevention of infection	4	0 -4	3.10±0.97	77.5%
Immunisation	4	0 -4	3.20±0.92	80.0%
Followup	4	0 -4	3.06±1.06	76.5%
OVERALL	40	0 -40	32.13±2.16	80.3%

Table 4 shows each domain wise post test percentage of knowledge of fathers on preterm care. nearly 82.8% of fathers gained knowledge regarding preterm care after LAPTOP teaching, 80.5% fathers got the knowledge regarding feeding of the baby 79.8% father understood the eye care after teaching, 80.0% of the fathers knew the important of immunization, 76.5% fathers understood the necessary of follow up care.

They are having maximum knowledge in skin care (83.5%) and minimum knowledge in Followup (76.5%). In overall 80.3% of fathers having knowledge on preterm care.

Table 8: POSTTEST LEVEL OF KNOWLEDGE

Level of knowledge	No. of fathers	%
Inadequate knowledge	0	0.0%
Moderate knowledge	22	22.0%
Adequate knowledge	78	78.0%
Total	100	100%

Table 5 shows, fathers level of knowledge on care of preterm.

In general none of them having inadequate knowledge ,22% of them having moderate knowledge and 78% of them having adequate knowledge.

FIG-7

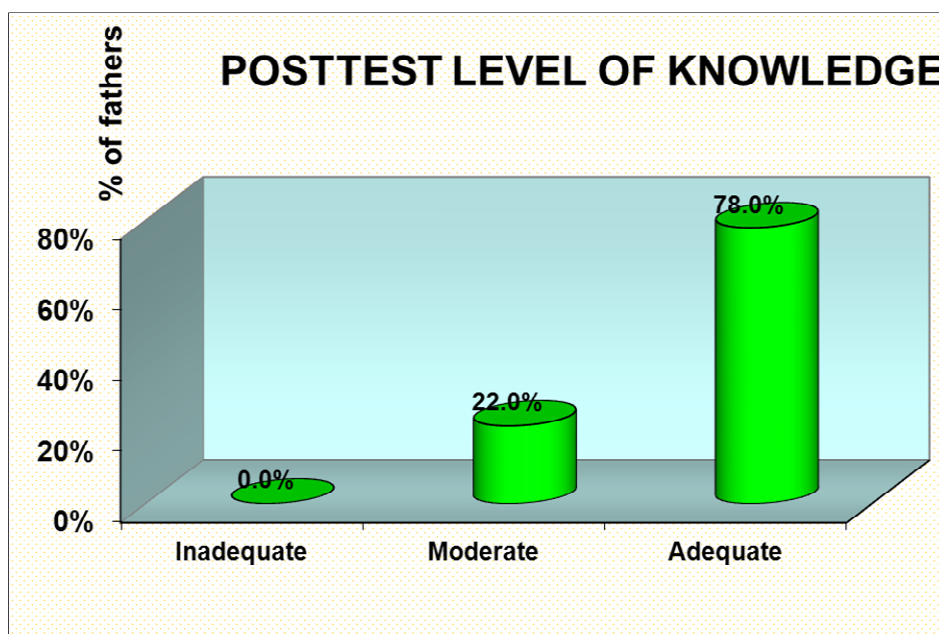


Fig -7 shows that the post test level of knowledge among fathers regarding preterm care among 100 fathers none of them have inadequate knowledge, 22% of the fathers gained moderate level of knowledge regarding preterm care, nearly 78% of the fathers gained adequate knowledge of preterm care through laptop teaching.

SECTION –III

Table 9: Comparison of pre test and posttest knowledge score

	Pretest		Posttest		Student's paired t-test
	Mean	SD	Mean	SD	
Preterm care	1.14	.65	3.31	.83	t=20.57 P=0.001 *** DF= 99 , Significant
Feeding of baby	1.04	.75	3.22	.91	t=19.90 P=0.001 *** DF= 99 , Significant
Thermo regulation	.95	.69	3.34	.77	t=21.82 P=0.001 *** DF= 99 , Significant
Skin care	1.16	.68	3.34	.77	t=23.64 P=0.001 *** DF= 99 , Significant
Umbilical cord care	.82	.73	3.28	.78	t=22.05 P=0.001 *** DF= 99 , Significant
Eye care	1.09	.75	3.19	.93	t=17.23 P=0.001 *** DF= 99 , Significant
Elimination needs	.87	.73	3.20	.85	t=19.04 P=0.001 *** DF= 99 , Significant
Prevention of infection	.94	.69	3.10	.97	t=19.83 P=0.001 *** DF= 99 , Significant
Immunisation	.89	.83	3.20	.92	t=18.81 P=0.001 *** DF= 99 , Significant
Followup	1.05	.64	3.06	1.06	t=15.66 P=0.001 *** DF= 99 , Significant

* significant at $P \leq 0.05$ ** highly significant at $P \leq 0.01$ *** very high significant at $P \leq 0.001$

Table no 9 shows the comparison of pre-test and post-test knowledge score.

In all the aspects, fathers gained more knowledge score in post-test.

Considering Preterm care, in pre-test, fathers are having 1.14 score whereas in post-test they are having 3.31 score. Difference is 2.17. This difference is large and it is statistically significant difference.

Considering Feeding of baby, in pretest, fathers are having 1.04 score whereas in post test they are having 3.22 score. Difference is 2.18. This difference is large and it is statistically significant difference.

Considering Thermo regulation, in pretest, fathers are having 0.95 score whereas in posttest they are having 3.34 score. Difference is 2.39. This difference is large and it is statistically significant difference.

Considering Skin care, in pretest, fathers are having 1.16 score whereas in posttest they are having 3.34 score. Difference is 2.18. This difference is large and it is statistically significant difference.

Considering Umbilical cord care, in pretest, fathers are having 0.82 score whereas in posttest they are having 3.20 score. Difference is 2.46 . This difference is large and it is statistically significant difference

Considering Eye care, in pretest, fathers are having 1.09score whereas in posttest they are having 3.19 score. Difference is 2.1. This difference is large and it is statistically significant difference

Considering Elimination needs, in pretest, fathers are having 0.87 score whereas in posttest they are having 3.73 score. Difference is 2.38. This difference is large and it is statistically significant difference

Considering Prevention of infection, in pretest, fathers are having 0.94 score whereas in posttest they are having 3.10 score. Difference is 2.16. This difference is large and it is statistically significant difference

Considering Immunisation, in pretest, fathers are having 0.89 score whereas in posttest they are having 3.20 score. Difference is 2.31. This difference is large and it is statistically significant difference

Considering Followup, in pretest, fathers are having 1.05 score whereas in posttest they are having 3.06 score. Difference is 2.01. This difference is large and it is statistically significant difference

SIGNIFICANCE OF DIFFERENCE BETWEEN PRETEST AND POSTTEST SCORE WAS CALCULATED USING STUDENT'S PAIRED T-TEST.

Table 10: Comparison of overall knowledge score before and after laptop assisted teaching

	No of questions	Pretest Mean \pm SD	Posttest Mean \pm SD	Student's paired t-test
Overall Knowledge Score	40	9.95 \pm 2.11	32.13 \pm 2.16	t=78.48 P=0.001*** DF = 99, significant

* significant at $P \leq 0.05$ ** highly significant at $P \leq 0.01$ *** very high significant at $P \leq 0.001$ (fig 6,7)

Table no 10 shows the comparison of overall knowledge before and after the administration of LAPTOP ASSISTED TEACHING.

On an average, father improved their knowledge from 9.95 to 32.13 after the administration of LAPTOP ASSISTED TEACHING.

Or we can say, in pretest they are able to answer only 10 questions before administration of, LAPTOP ASSISTED TEACHING. After administration of LAPTOP ASSISTED TEACHING they are able to answer upto 32 questions. Due to LAPTOP ASSISTED TEACHING. They are able to answer 22 more questions correctly. This difference is statistically significant.

Statistical significance was calculated by using student's paired 't'test.

TABLE 11: EACH DOMAINWISE POSTTEST PERCENTAGE OF KNOWLEDGE

Knowledge related	Pre test knowledge	Post test knowledge	% of knowledge gain
Preterm care	28.5%	82.8%	54.3%
Feeding of baby	26.0%	80.5%	54.5%
Thermo regulation	23.8%	82.0%	58.2%
Skin care	29.0%	83.5%	54.5%
Umbilical cord care	20.5%	80.8%	60.3%
Eye care	27.3%	79.8%	52.5%
Elimination needs	21.8%	80.0%	58.2%
Prevention of infection	23.5%	77.5%	54.0%
Immunisation	22.3%	80.0%	57.7%
Followup	26.3%	76.5%	50.2%
Overall	24.9%	80.3%	55.4%

Table11 shows each domain wise knowledge gained by the fathers as follows .The fathers gained the percentage knowledge regarding preterm care after LAPTOP teaching is 54.3% then pretest. the fathers gained knowledge regarding baby feeding is 54.5% then pretest, the increased percentage in knowledge on thermoregulation is 58.2%, like that the fathers knowledge has increased after teaching on skin care is 54.5%. the knowledge regarding Eye care, elimination care, prevention of infection, immunization and the important of follow up care are increased percentage respectively,52.5%,58.2%, 54.0%, 57.7%, 50.2%, and 50.2%. so the overall percentage of knowledge gained by the fathers after LAPTOP Assisted teaching is 55.4%.

TABLE 12: EFFECTIVENESS OF LAPTOP ASSISTED TEACHING

	Max score	Mean score	Mean Difference in knowledge score with 95% Confidence interval	Percentage Difference in knowledge score with 95% Confidence interval
Pretest	40	9.95	22.18(21.58 – 22.77)	55.4% (53.9% – 56.9%)
Posttest	40	32.13		

Table no 12 shows the effectiveness of Laptop assisted teaching on preterm care .

On an average, in posttest after Laptop assisted teaching , fathers are gained 55.4% of more knowledge score than pretest score.

This 55.4 percent of knowledge gain is the net benefit of this study, which indicates the effectiveness of Laptop assisted teaching .

Differences between pretest and posttest score was calculated using and mean difference with 95% CI and proportion with 95% CI.

TABLE 13:COMPARISON OF PRETEST AND POSTTEST LEVEL OF KNOWLEDGE

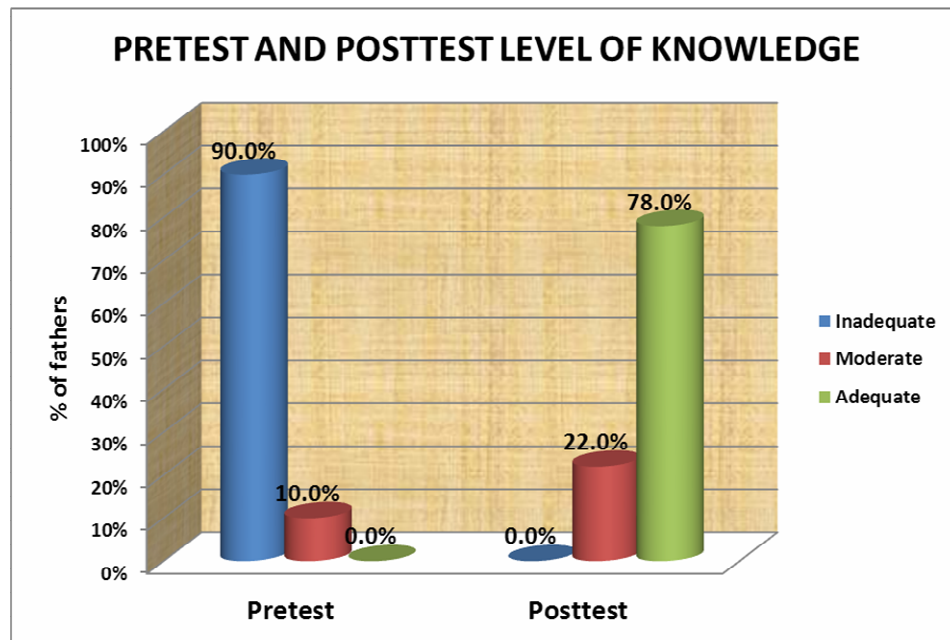
Level of knowledge	Pretest		Posttest	
	No.of fathers	%	No.of fathers	%
Inadequate knowledge	90	90.0%	0	0.0%
Moderate knowledge	10	10.0%	22	22.0%
Adequate knowledge	0	0.0%	78	78.0%

Table no.13 shows the pretest and post-test level of knowledge on preterm care.

In general 90.0% of inadequate knowledge , 10% of them having moderate knowledge and none of them having adequate knowledge.

In general none of them having inadequate knowledge ,22% of them having moderate knowledge and 78% of them having adequate knowledge.

FIG-8



According to pre test the knowledge level of the fathers in preterm care was 90% of the fathers had inadequate knowledge ,10% of the fathers had moderate knowledge, and none of the fathers had adequate knowledge regarding preterm care.

According to post test the level of the knowledge regarding preterm care was increased like nearly 78% of the fathers gained adequate knowledge ,22% of the fathers gained moderate knowledge and the none of the fathers had inadequate knowledge.

TABLE 14: PRETEST AND POSTTEST LEVEL OF KNOWLEDGE SCORE

		POST TEST			Total
		Inadequate	Moderate	Adequate	
PRE TEST	Inadequate	0	21	69	90
	Moderate	0	1	9	10
	Adequate	0	0	0	0
Total		0	22	78	30

Stuart-Maxwell test / Generalized McNemar's chi square test =22.36 P=0.001

Table no 14 shows the comparison of level of knowledge before and after the administration of LAT.

In pretest, 90 fathers are having inadequate knowledge, 10 fathers are having moderate knowledge and none of them are having adequate knowledge.

In posttest, 22 fathers are having moderate knowledge ,78 fathers are having adequate knowledge

Out of 90 inadequate knowledge fathers in pretest, 21 move to moderate knowledge level , 69 fathers move to adequate knowledge level and none of them having inadequate knowledge level.

Out of 10 moderate knowledge fathers in pretest, 9 fathers move to adequate knowledge level and 1 father move to moderate level.

There is a significant difference between pretest and posttest level of knowledge score.

Level of knowledge gain of between pretest and posttest was calculated using Stuart-Maxwell test/ Generalised McNemar's chisquare test.

TABLE 15: ASSOCIATION BETWEEN PRETEST LEVEL OF KNOWLEDGE AND THEIR DEMOGRAPHIC VARIABLES

		Pretest level of knowledge				Total	Pearson chisquare test
		Inadequate		Moderate			
		n	%	n	%		
Age	20 -22 yrs	12	92.3%	1	7.7%	13	$\chi^2=0.11$ P=0.94 DF = 1
	23 -25 yrs	54	90.0%	6	10.0%	60	
	26 -35 yrs	24	88.9%	3	11.1%	27	
Education	No formal education	4	80.0%	1	20.0%	5	$\chi^2=3.91$ P=0.27 DF = 1
	Primary school	32	84.2%	6	15.8%	38	
	High school	41	93.2%	3	6.8%	44	
	UG/PG	13	100.0%			13	
Religion	Hindu	67	89.3%	8	10.7%	75	$\chi^2=1.78$ P=0.41DF = 1
	Muslim	12	100.0%			12	
	Christian	11	84.6%	2	15.4%	13	
Occupation	Employed	87	90.6%	9	9.4%	96	$\chi^2=1.04$ P=0.31DF = 1
	Un employed	3	75.0%	1	25.0%	4	
Type of family	Joint family	23	88.5%	3	11.5%	26	$\chi^2=0.09$ P=0.76DF = 1
	Nuclear family	67	90.5%	7	9.5%	74	
Place of residence	Rural	53	93.0%	4	7.0%	57	$\chi^2=1.31$ P=0.25DF = 1
	Urban	37	86.0%	6	14.0%	43	
Experience	Yes	12	100.0%			12	$\chi^2=1.51$ P=0.22 DF = 1
	No	78	88.6%	10	11.4%	88	
Illness	DM	12	92.3%	1	7.7%	13	$\chi^2=1.46$ P=0.69DF = 1
	TB	9	90.0%	1	10.0%	10	
	Heart disease	10	100.0%			10	
	Nil	59	88.1%	8	11.9%	67	
Habits	Smoking	27	93.1%	2	6.9%	29	$\chi^2=3.35$ P=0.34DF = 1
	Alcoholic	14	100.0%			14	
	Drug	2	100.0%			2	
	Nil	47	85.5%	8	14.5%	55	

		Pretest level of knowledge				Total	Pearson chisquare test
		Inadequate		Moderate			
		n	%	n	%		
Learned	Physician	10	90.9%	1	9.1%	11	$\chi^2=2.75$ P=0.25DF = 1
	Nurses	19	100.0%			19	
	Household members	61	87.1%	9	12.9%	70	
Income	< Rs.5000	11	100.0%			11	$\chi^2=1.88$ P=0.39DF = 1
	Rs.5001 - 10000	55	87.3%	8	12.7%	63	
	Rs.10001 - 15000	24	92.3%	2	7.7%	26	
Source of information	Books	9	90.0%	1	10.0%	10	$\chi^2=0.55$ P=0.76DF = 1
	TV	28	93.3%	2	6.7%	30	
	Friends/Relatives	53	88.3%	7	11.7%	60	
Gestational age	28 -30 wks	16	100.0%			16	$\chi^2=2.54$ P=0.28DF = 1
	31 -33 wks	13	92.9%	1	7.1%	14	
	34 -37 wks	61	87.1%	9	12.9%	70	
Family history	Yes	8	80.0%	2	20.0%	10	$\chi^2=1.23$ P=0.26DF = 1
	No	82	91.1%	8	8.9%	90	
Permission at working place	Yes	15	83.3%	3	16.7%	18	$\chi^2=1.08$ P=0.30DF = 1
	No	75	91.5%	7	8.5%	82	

Table no 15 shows the association between fathers demographic variables and their pretest level of knowledge

None of the demographic variables are significantly associated with their pre test level of knowledge .

Association between demographic variables and their pretest level of knowledge was analyzed using pearson chisquare test.

TABLE-16: ASSOCIATION BETWEEN POSTTEST LEVEL OF KNOWLEDGE AND THEIR DEMOGRAPHIC VARIABLES

		Posttest level of knowledge				Total	Pearson chisquare test
		Moderate		Adequate			
		n	%	n	%		
Age	20 -22 yrs	6	46.1%	7	53.9%	13	$\chi^2=7.83$ $P=0.01^{**}$ $DF = 1$
	23 -25 yrs	14	23.3%	46	76.7%	60	
	26 -35 yrs	2	7.4%	25	92.6%	27	
Education	No formal education	2	40.0%	3	60.0%	5	$\chi^2=7.77$ $P=0.05^*$ $DF = 1$
	Primary school	8	21.1%	30	78.9%	38	
	High school	11	25.0%	33	75.0%	44	
	UG/PG	1	7.7%	12	92.3%	13	
Religion	Hindu	16	21.3%	59	78.7%	75	$\chi^2=0.80$ $P=0.67$ $DF = 1$
	Muslim	2	16.7%	10	83.3%	12	
	Christian	4	30.8%	9	69.2%	13	
Occupation	Employed	21	21.9%	75	78.1%	96	$\chi^2=0.04$ $P=0.88$ $DF = 1$
	Un employed	1	25.0%	3	75.0%	4	
Type of family	Joint family	1	3.8%	25	70.2%	57	$\chi^2=4.72$ $P=0.02$ $DF = 1$
	Nuclear family	21	28.4%	53	88.4%	43	
Place of residence	Rural	17	29.8%	40	70.2%	57	$\chi^2=4.72$ $P=0.02$ $DF = 1$
	Urban	5	11.6%	38	88.4%	43	
Previous Experience	Yes	0	0.0%	10	100.0%	12	$\chi^2=5.33$ $P=0.02^*$ $DF = 1$
	No	22	24.4%	68	75.6%	88	
Illness	DM	0	0.0%	1	100.0%	1	$\chi^2=4.11$ $P=0.26$ $DF = 1$
	TB	0	0.0%	1	100.0%	1	
	Heart disease	1	100.0%	0	0.0%	1	
	Nil	21	26.9%	76	73.1%	97	
Habits	Smoking	9	31.0%	20	69.0%	29	$\chi^2=2.55$ $P=0.46$ $DF = 1$
	Alcoholic	2	14.3%	12	85.7%	14	
	Drug	0	0.0%	2	100.0%	2	
	Nil	11	20.0%	44	80.0%	55	

		Posttest level of knowledge				Total	Pearson chisquare test
		Moderate		Adequate			
		n	%	n	%		
Learned	Physician	4	36.4%	7	63.6%	11	$\chi^2=2.81$ P=0.25 DF = 1
	Nurses	2	10.5%	17	89.5%	19	
	Household members	16	22.9%	54	77.1%	70	
Income	< Rs.5000	0	0.0%	11	100.0%	11	$\chi^2=4.27$ P=0.12 DF = 1
	Rs.5001 - 10000	14	22.2%	49	77.8%	63	
	Rs.10001 - 15000	8	30.8%	18	69.2%	26	
Source of information	Books	1	10.0%	9	90.0%	10	$\chi^2=0.93$ P=0.62 DF = 1
	TV	7	23.3%	23	76.7%	30	
	Friends/Relatives	14	23.3%	46	76.7%	60	
Gestational age	28 -30 wks	3	18.8%	13	81.3%	16	$\chi^2=1.79$ P=0.41 DF = 1
	31 -33 wks	5	35.7%	9	64.3%	14	
	34 -37 wks	14	20.0%	56	80.0%	70	
Family history	Yes	0	0.0%	10	100.0%	10	$\chi^2=5.33$ P=0.02* DF = 1
	No	22	24.4%	68	75.6%	90	
Permission at working place	Yes	3	16.7%	15	83.3%	18	$\chi^2=0.36$ P=0.54 DF = 1
	No	19	23.2%	63	76.8%	82	

The table shows that the post test level of knowledge gained by fathers after laptop assisted teaching regarding preterm care

From the post test score 92.6% of fathers gained adequate knowledge by the age group of 26 to 35 years fathers .

The 30% of fathers those who are in primary school education posses 78.9% adequate knowledge and the 8% of the fathers having 21.1% of moderate knowledge regarding preterm care, 12% of fathers among graduates have 92.3% adequate knowledge and 1% of the fathers possess 7.7 % moderate knowledge regarding preterm care. The 33% of fathers those who finished their higher secondary education possess 75% of adequate

knowledge and 11% of the fathers having 25% moderate knowledge regarding preterm care.

According to religion Muslims are had adequate knowledge gained from laptop teaching the percentage is 83.3% next the Hindus are had 78.7% gained knowledge regarding preterm care.

Post test knowledge of preterm care acquired by employed fathers (78.1%) than unemployed fathers.

Among 100 sample 26 fathers from joined family, the fathers from joined family gained adequate knowledge from laptop teaching their percentage was 96.2%.

Among the place of residence the fathers from urban area gained adequate knowledge regarding preterm care 88.4% than rural area fathers.

The fathers from 100 samples 100% of preterm care gained by the fathers those who have previous experience in preterm care .

100% of knowledge regarding preterm care gained by the fathers those who are had family history of preterm baby.

From the finding of the study the

Father's age (26-35 yr)

Education (graduates)

Previous history of preterm baby care

type of family (joint family),

Place of residence (urban)

Are mostly associated with the knowledge of the fathers, regarding preterm care obtained from laptop teaching.

FIG-9

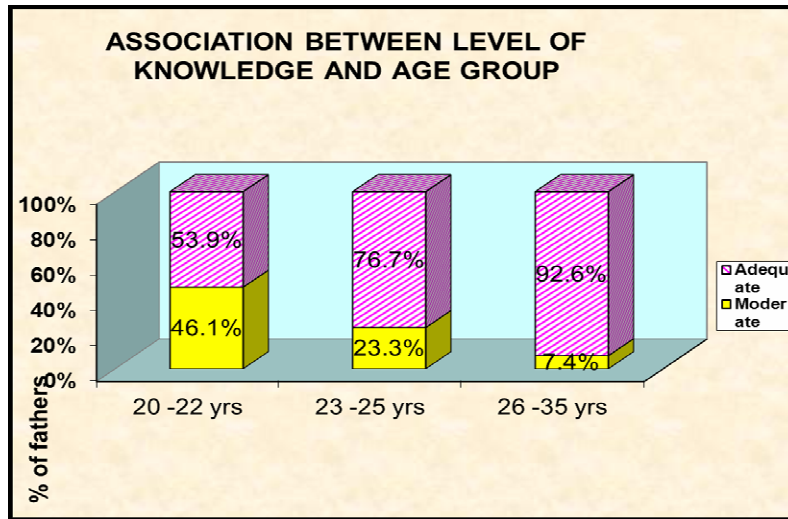


Fig-9 shows that From the post test score 92.6% of fathers gained adequate knowledge by the age group of 26 to 35 years fathers .

FIG-10

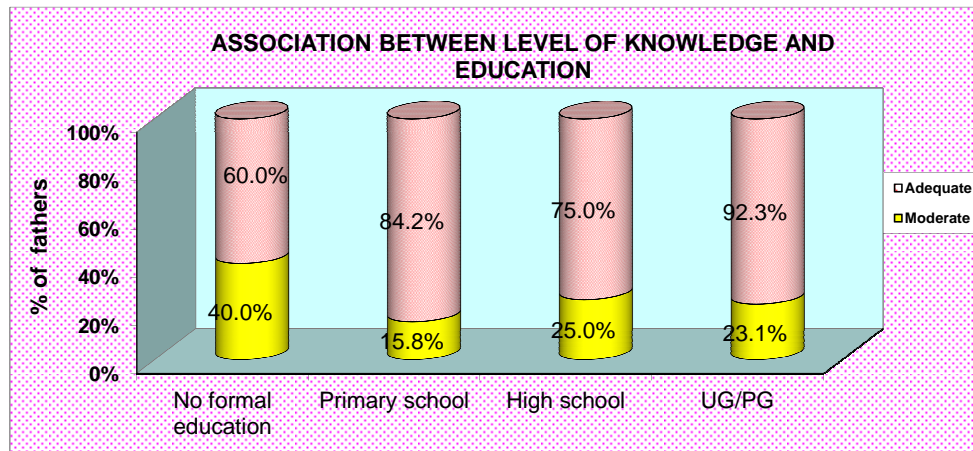
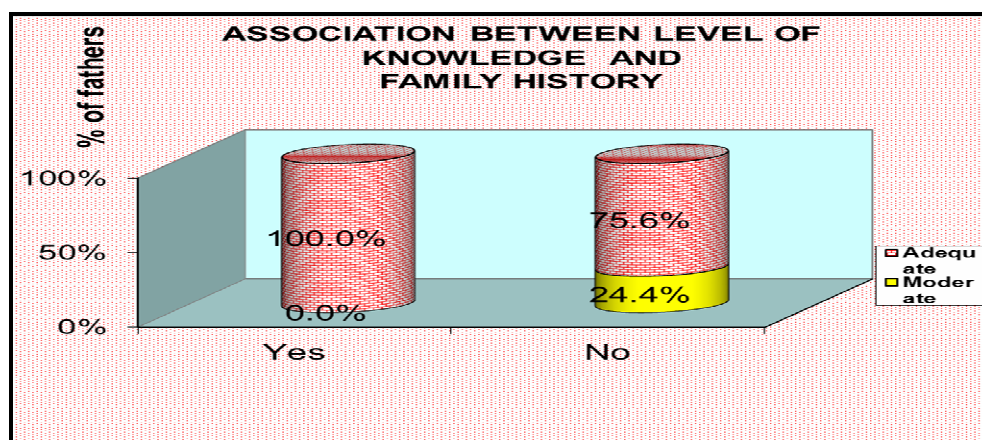


Fig 10 shows that the association between level of knowledge and education, the 30% of fathers those who are in primary school education posses 78.9% adequate knowledge and the 8% of the fathers having 21.1% of moderate knowledge regarding preterm care, 12% of fathers among graduates have 92.3% adequate knowledge and 1% of the fathers possess 7.7 % moderate knowledge regarding preterm care. The 33% of fathers those who finished their higher secondary education possess 75% of adequate knowledge and 11% of the fathers having 25% moderate knowledge regarding preterm care.

FIG-11



According to fig-11, the knowledge gained by the fathers was most associated with family history of preterm baby. Nearly 10% of the fathers had the history of family history all of them had adequate knowledge 22% of the fathers those who are not having family history had 24.4% of knowledge, and the 68% of the fathers had 75.6% of knowledge.

FIG-12

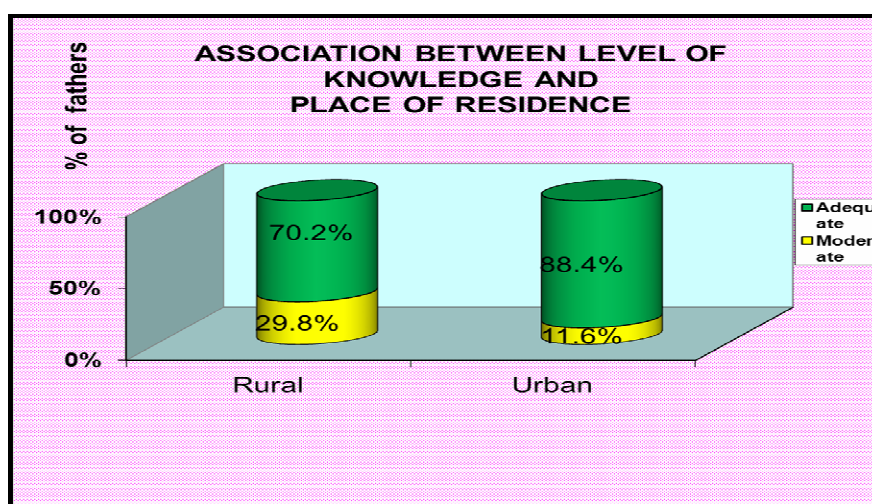


Fig-12 shows that the association between the level of knowledge with the place of residence according to demographic data 43% of the fathers from urban area among them 38% of the fathers had 88.4% and 5% of the fathers had 11.6% of knowledge, 57% of the fathers from rural area, among the these fathers 17% of the fathers had 29.8% of knowledge, 40% of the fathers had 70.2% of knowledge.

FIG-13

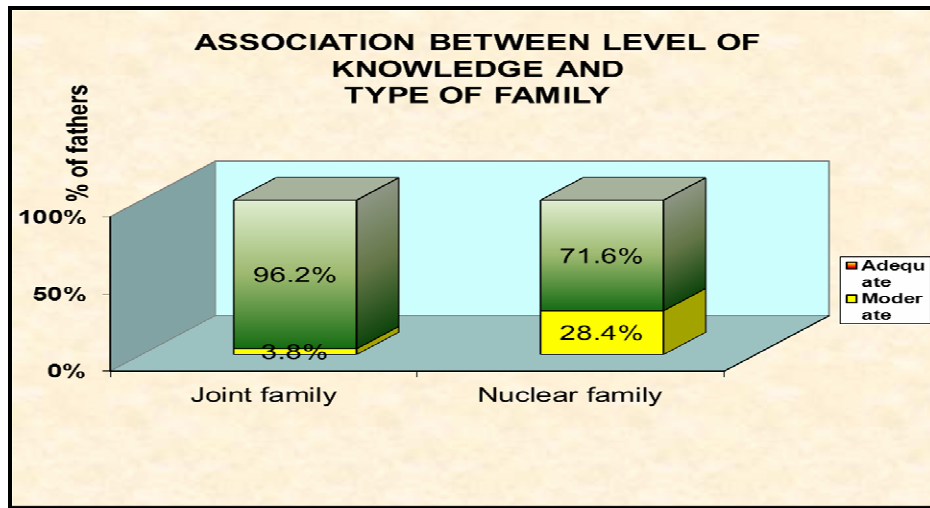


Fig-13 shows that the association between the level of knowledge and the type of family, according to demographic variables 26% of the fathers from joint family among them 25% of the fathers had 96.2% of adequate knowledge, 1% of the fathers had 3.8% of moderate knowledge, 74% of the fathers from nuclear family

FIG-14

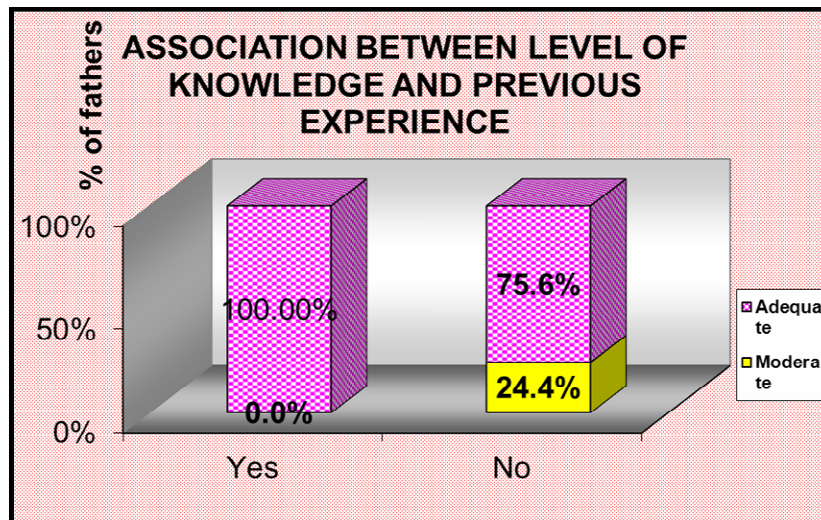


Fig -14 shows that the association between level of knowledge and previous experience, from this study previous experience in family history of preterm baby have adequate knowledge than those who are not having previous knowledge of preterm baby.

CHAPTER-V DISCUSSION

The research has demonstrated the effectiveness of LAPTOP assisting teaching programme on knowledge among fathers on preterm care. The investigator conducted the study in neonatology unit, Institute of child health, EGMORE, CHENNAI-8.

Hundred fathers were selected by using convenience sampling method. The samples were selected based on the inclusion criteria. The fathers were interviewed separately without having the possible interaction of the interviewer with other sample respondents. The structured interview questionnaire was used to collect the information after getting the validity from experts and pilot study.

The investigator gave the laptop teaching programme to the fathers after they were seated comfortably in the well baby clinic in neonatology, after 4 days the fathers were asked to gather in the well baby clinic and assessed the knowledge which gained from the LAPTOP teaching programme. Significance of difference between pretest and post test score was calculated using "student's paired t-test".

The collected data were classified into 2 section. The first section contains the demographic variables of the fathers and the second section contains the questionnaire related to knowledge aspects of preterm care

THE RESULT OF THE STUDY ARE DISCUSSED BELOW BASED ON OBJECTIVES

“Out of 100 fathers majority of fathers (60%) were in the age group of 23-25 years and 27% of the fathers from the age group of 26 -35 years, only 13% fathers from the age group of 20-22 years.

Regarding educational status 44% of the fathers had higher secondary education, nearly 5% of the fathers were illiterate, nearly 38% of the fathers finished their primary school education, around 13% fathers were graduates .

Three fourth of the fathers that is nearly 75% of the fathers belong to Hindu religion, 12% were Muslims and 13% fathers were belong to Christian.

Most of the fathers 96% were employed, and only 4% fathers were unemployed. Nearly 74% belonging to nuclear family , and 26% belonging to joint family. Nearly 57% of the fathers from rural area, and 43% of the fathers from urban area.

In this study nearly 88% of the fathers not having previous experience on preterm baby care, only 12% fathers had experience to take care of preterm babies. Almost all fathers nearly 97% were in good health , only 3% fathers have some illness. According to this study nearly 29% of the fathers were smokers, 14% fathers were alcoholic (mostly they have occasionally), nearly 57% of the fathers don't have any habits.

Around 70% of the fathers learned preterm care from family members, nearly 63% of the father's family income is from rupees 5001 to 10,000 rupees. Most of the fathers that is 60% were got the information about preterm care from friends/ relatives.

In this study 70% of the fathers (those who are participated) babies born between 34 to 37 weeks. Ten percent fathers only had the family history of preterm babies, and the 82% of the fathers do not get permission or leave to take care of their preterm babies from their working place.

The first objective of the study was to assess the knowledge among fathers on preterm care in the following aspects, regarding knowledge about preterm care- the investigator assessed the fathers knowledge under 10 aspects such as

PRETERM BABY CARE

According to the analysis the father's knowledge regarding preterm care in pre-test is only 28.5%, but in post test after laptop teaching the fathers gained knowledge about preterm care is 82.8% of knowledge

So Considering Preterm care, in pre-test , fathers are having 1.14 knowledge score whereas in post-test they are having 3.31 knowledge score.

Difference is 2.17. This difference is large and it is statistically significant It is supported by *Alio Amina, Ph.D., Research Assistant Professor (1998-2005)*.

FEEDING OF THE BABY

The investigator explained the important of breast feeding and the methods of feed the expressed breast milk ,exclusive breast feeding , Paladai feeding technique and hand washing and how to keep feeding utensils. Considering Feeding of baby, in pretest, fathers are having 1.04 knowledge score whereas in posttest they are having 3.22 knowledge score. Difference is 2.18. This difference is large and it is statistically significant difference. It is supported by *Chen YC, Chie WC, Chang PJ, Chuang CH, et al (2010)*

THERMO REGULATION

The investigator discussed to the fathers about the hypothermia, about kangaroo mother care it can given by all family members with out having any infection, and the cover the baby with woollen cloths to prevent heat loss. Considering Thermo regulation, in pretest, fathers are having 0.95 knowledge score whereas in posttest they are having 3.34 knowledge score. Difference is 2.39. This difference is large and it is statistically significant difference. It is supported by *R.Tessier, N.Charpak, M.Giron, M Cristo, Z F De colume, J G Ruiz- Pelaez (2005)*.

SKIN CARE

The fathers are taught about the skin care, body massage, danger sign of skin colour changes, regarding spong bath with luck worm water. Considering Skin care, in pretest, fathers are having 1.16 knowledge score whereas in posttest they are having 3.34 knowledge score. Difference is 2.18. This difference is large and it is statistically significant difference. It is supported by *Jill Irving RN (Adult), RN (Child), RM, Health Visitor, JP (2010)*.

UMBILICAL CORD CARE

The care of umbilical cord was taught to fathers through laptop by pictures, and instruction was given not put anything over the cord and the diaper should place under the umbilical cord.

Considering Umbilical cord care, in pretest , fathers are having 0.82 knowledge score whereas in posttest they are having 3.20 knowledge score. Difference is 2.46. This difference is large and it is statistically significant difference it is supported by *Bern et al (1992)*, *Aiman L.Cimiothij, Larson E (2007)*..

EYE CARE

Laptop teaching given to the fathers regarding eye care, how to protect the eye, avoidance of kajal and self medication, and demonstration given to the fathers about how to clean the eyes. Considering Eye care, in pretest, fathers are having 1.09score whereas in posttest they are having 3.19 score. Difference is 2.1. This difference is large and it is statistically significant difference. it is supported by WHO *Bulletin 1995*.

ELIMINATION NEEDS

Educate the fathers regarding how to clean the baby after urination and defecation, how often change the diaper, if not what will be the result, pictures shown through laptop, and demonstration shown to the fathers to clean by clean wet cloth from upper direction to lower direction

Considering Elimination needs, in pretest, fathers are having 0.87 knowledge score whereas in posttest they are having 3.73 knowledge score. Difference is 2.38. This difference is large and it is statistically significant difference.

PREVENTION OF INFECTION

The investigator gave the health education regarding hand wash, isolate the baby from infected persons , and the methods to keep the baby in home environment, Considering Prevention of infection, in pretest , fathers are having 0.94 knowledge score whereas in posttest they are having 3.10

knowledge score. Difference is 2.16. This difference is large and it is statistically significant difference. It is supported by *Casiro. O.G, Mckenzie M.E et al (1998)*

IMMUNISATION

Fathers are instructed by the investigator how the vaccines are protect the baby from 6 major diseases' and the important of the immunization Considering Immunisation, in pretest , fathers are having 0.89 knowledge score whereas in posttest they are having 3.20 knowledge score. Difference is 2.31. This difference is large and it is statistically significant difference. It is supported by *Brugha RF, Kevany JP, Swan AV.(2010)*

FOLLOWUP

The investigator advice the father to attent the follow up op without fail and ask them to clear their doubt regarding baby care after discharge Considering Followup, in pretest , fathers are having 1.05 knowledge score whereas in posttest they are having 3.06 knowledge score. Difference is 2.01. This difference is large and it is statistically significant difference. It is supported by *Michael P Sherman, MD., Chief Editor, T.Ed Rosenkrantz, MD (2011).*

The second objective of the study was, to assess the effectiveness of LAPTOP assisted teaching programme on knowledge among fathers on preterm care.

The over all pre test score of the fathers were $9.95 \pm 2.11(24.9\%)$,after laptop teaching programme and the overall post test score of the fathers were 32.13 ± 2.16 that is 80.3%. It shows that the mean score of the post test in each one of the ten aspects and on the whole are higher than the mean score of the pre test.

The over all improvement mean score of the fathers were analysed by student 's paired t-test $t=78.48$ $p=0.001$ $DF=99$, Significant (p value shows that very high significant).

In the pre test on an average they were able to answer only 10 question before administration of laptop assisted teaching, after administration of laptop assisted teaching the fathers are able to answer upto 32 questions. Due to laptop teaching fathers are able to answer 22 more questions correctly. This difference is statistically significant. Statistical significance was calculated by using student's paired 't' test. It is supported by *John Hoffman (2010)*.

The third objective of the study was, to associate pre and post test knowledge score of fathers on preterm care with demographic variables.

To the association between knowledge and demographic variables of the fathers on preterm care, was analyzed using pearson chisquare test, from the analytical assessment the knowledge will be more associated with age, that is 26-35 years, according to education, those who are finished their graduation have more knowledge that is (84.2%) ,previous experience, and family history of previous preterm birth have more significant to the knowledge. the fathers from joint family have more knowledge 96.2% than those who are from nuclear family, fathers living in urban side have more knowledge 88.4%, than those who are from rural side due to more exposed of resources and multi media.

Hence, it is concluded that the fathers gained knowledge through the laptop assisted teaching programme, the pre and post test level of knowledge gain score was calculated using stuart- Maxwell test/ Generalised McNemar's chisquare test. This is supported by *Lindberg I, Christensson K, Ohrling K. et. al (2009)* they found that the modern technology teaching methods will helps to gains the knowledge of the fathers and caregivers.

CHAPTER-VI

SUMMARY AND RECOMMENDATION

Preterm is indisputably a very important indirect cause of death in neonates the world over. Globally, between 40 and 80% of neonatal deaths occur among LBW neonates. The World Health Organization estimates that 16% of neonates, or nearly 20 million, are born LBW each year. The highest incidence is observed in South Asia, where an estimated 31% of neonates are born LBW.

So the important of the KNOWLEDGE to be given to the parents especially to the fathers to prevent world neonates, and maintain healthy society. This is one of the most challenging and frustrating problems in public health. The LBW and preterm births are associated with most of the mortality and a major proportion of morbidity in the neonatal period, and the importance of their prevention is undisputed. However, as long as we do not have effective methods of primary prevention, then secondary prevention, that is, case management and to increase the survival, is the practical option. The overwhelming effect of supportive care and treatment with antibiotics on mortality and morbidities observed in this trial suggests that the current situation of lack of care at home for needy neonates must change.

Review of literature helped the investigator to develop the necessary tools and methodology to support this study. A pre experimental research method was under taken for this study to assess the effectiveness of LAPTOP teaching programme on knowledge among fathers on preterm care. 100 fathers were selected for this study by convenience sampling methods based on inclusion criteria. The tool was developed after reviewing relevant literature and expert's opinion.

It consist of two sections i.e., section-A, Demographic variables and section-B Scheduled questionnaire related to knowledge regarding preterm care.

The study was based on Ludwig von Bertalanffy's General Systems Theory (1968) General system theory of systems would be a useful tool

providing, on the one hand, models that can be used in, and transferred to, different fields, and safeguarding, on the other hand, from vague analogies which often have marred the progress in these fields.

The post test level of knowledge gained by fathers after laptop assisted teaching regarding preterm care

From the post test score 92.6% of fathers gained adequate knowledge by the age group of 26 to 35 years fathers .

Nearly 92.3% of knowledge gained by the graduate fathers than higher secondary educated fathers and 78.9% knowledge gained by primary school fathers than no formal educated fathers .

According to religion Muslims are had adequate knowledge gained from laptop teaching the percentage is 83.3% next the Hindus are had 78.7% gained knowledge regarding preterm care.

Post test knowledge of preterm care acquired by employed fathers (78.1%) than unemployed fathers.

Among 100 sample 26 fathers from joined family, the fathers from joined family gained adequate knowledge from laptop teaching their percentage was 96.2%.

Among the place of residence the fathers from urban area gained adequate knowledge regarding preterm care 88.4% than rural area fathers.

The fathers from 100 samples 100% of preterm care gained by the fathers those who have previous experience in preterm care .

100% of knowledge regarding preterm care gained by the fathers those who are had family history of preterm baby.

The hypotheses formulated were , that there is a significant relationship of fathers age, education, previous family history of preterm baby, joint family, urban residence with level of knowledge. Thus the health care personnel will be able to identify those who require special attention while imparting health education

Descriptive and inferential statistical methods like frequency, tables,

mean, standard deviation, percentage, pearson's chi-square test, Level of knowledge gain of between pretest and posttest was calculated using Stuart-Maxwell test/ Generalised McNemar's chisquare test. ,Significance of difference between pretest and posttest score was calculated using student's paired t-test. Statistical significance was calculated by using student's paired 't' test were used to interpret the data.

MAJOR FINDINGS OF THE STUDY

In pre test fathers level of knowledge on care of preterm 90.0% of the fathers have inadequate knowledge, 10% of them having moderate knowledge and none of them having adequate knowledge.

In post test none of them having inadequate knowledge, 22% of them having moderate knowledge and 78% of them having adequate knowledge

The improvement mean score of over all knowledge of the fathers in pre test is 9.95 mean score in post test is 32.13, mean difference in knowledge score is 22.18, percentage difference in knowledge score with 95% confidence interval

On an average, in posttest after Laptop assisted teaching, fathers are gained 55.4% of more knowledge score than pretest score.

This 55.4 percent of knowledge gain is the net benefit of this study, which indicates the effectiveness of Laptop assisted teaching.

There is a significant difference between pretest and posttest level of knowledge score.

None of the demographic variables are significantly associated with their pre test level of knowledge .the association between fathers demographic variables and their posttest level of knowledge Elders, more educated, previous experience and family history joint family fathers and the fathers from urban are significantly associated with their post test level of knowledge when compared with other significant demographic variables.

IMPLICATION TO NURSING

This study has its implication in nursing service, nursing education, nursing administration and nursing research.

NURSING SERVICE

Health education is the vital role of the nurses. The parents need information regarding home care after discharge. It is mandatory that nurses supply the needed information to the fathers before he is discharged from the hospital.

The finding of the study strongly supports the importance of teaching to fathers in various aspects. the nursing personals should conduct various programs for fathers which, will help in reduction of neonatal mortality and morbidity. Will help the nurse to develop the profession in an independent and extended aspect. Will help in prevention of complications like hypothermia and hypoglycemia for the preterm babies. Pamphlets, hand books, posters and other AV aids can be displayed in neonatology ward and outpatient department

Will focus on social supports which helps to eliminate worries, harmful traditional practices and promote their mental strength to take care of the baby.

NURSING EDUCATION

- ❖ Student nurse s should be motivated in participating and organizing teaching program me on the various aspects whenever posted in neonatology ward.
- ❖ Nursing educator should motivate the fathers to participate in any teaching pregame regarding preterm care in hospital and any health organization.
- ❖ Nurses educator should take initiative to publish books and articles in journals regarding care of preterm babies.
- ❖ Students should be encouraged to do many projects on care of preterm babies.

NURSING ADMINISTRATION

- ❖ An effective role is found in every nursing administrator in organizing these programs.
- ❖ Neonatology nurse can be encouraged to organize educational programs on preterm baby care regularly in the ward and outpatient department.
- ❖ Plan for staff development programme for nurses' on care of preterm babies to update their knowledge periodically.
- ❖ Nurse administrator should expand their role in involving themselves in policy making.

NURSING RESEARCH

This study provides the scope for further research related to other aspects on preterm care. Nurses will have to apply new techniques in their role in the respective department where they are posted and such care should also be expected from the fathers or attenders to carry out. The research studies on the knowledge and practice of the fathers and relatives should be undertaken to eliminate certain bad practices/taboo and to find out useful guidance for the nursing practitioners as well as educators.

This study provides the scope for further research related to other aspects on preterm care.

- 1) The study findings bring an understanding that there is a serious lack in the awareness on preterm care among fathers
- 2) Utilization of finding and dissemination of knowledge in nursing practice.

RECOMMENDATIONS

During the course of the study the investigator felt that the following recommendation are required to be mentioned,

- ❖ Educational programmes on prevention of infection and kangaroo mother care, immunization , care of umbilical cord and skin care to be conducted for family members.
- ❖ A similar study can be done to follow up the babies in home.
- ❖ A similar study may be conducted with experimental approach having a control group with larger samples.
- ❖ A comparative study can be done in rural and urban areas.
- ❖ A follow up study could be done to identify the complications in the preterm babies
- ❖ Coping skill of the parents with preterm babies could be studied
- ❖ Cohort of preterm babies should be studied to find out the duration taken to become a normal baby.
- ❖ Interstate difference in knowledge and practice of preterm care could be compared
- ❖ The in-laws and the caregiver should be involved in such classes.

CONCLUSION

Researchers have conjecture that pre-term babies, who must remain hospitalized for relatively long periods of time, may be deprived of the benefits of mutual stimulation between parent and child. That is, pre-term babies and their parents have less interactions. For example, when a baby cries or smiles, parents respond in specific ways - they may feed, hold, talk to, or smile at their babies. Babies learn from their parents' responses that they are loved, that they have some control over their world, and that specific behaviors elicit specific responses. Parents, in turn, learn about their babies needs and personalities through observation of and contact with them. Thus, through a process of mutual discovery, parents and babies learn to interact with each other.

Researchers have found that an important factor in how well the pre-term infant develops-any baby, for that matter-is very much dependent on the parents' attitudes and behaviors. Those parents who persistently try to make eye contact with their babies, who talk to them during feedings, who hold them and rock them, and who, in general, interact more with their babies eventually are rewarded by their babies' response and healthy development.

Because doctors cannot predict accurately a particular baby's future, parents may suffer needless worry when they ask a question such as, "Will my child be retarded?" The physician's honest answer of "Possibly" or "I don't know yet" may be heard by stressed parents as a "yes" instead of "maybe." It may or may not help parents to know that 75 percent of premature babies develop normally.

So to reduce the worries of the fathers and mothers, researcher must to teach the fact and possibility of the survival of the preterm babies with good care. In this study the majority of the fathers that is 90% of the fathers had inadequate knowledge and 10% of the fathers had moderate knowledge in the pre-test after the laptop teaching programme 78% of the fathers had adequate knowledge and 22% had moderate knowledge regarding preterm care.

An improvement of 55.4% may be attributed to the teaching methodology used by the investigator about the knowledge aspect of preterm care. So the investigator conclude that the main key for reducing the mortality and morbidity rate of preterm baby is creating awareness about preterm care among fathers and family members.

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REPORTS

- 1) WHO report (2005),

ABBREVIATION

EBM	Expressed Breast milk
ICH	Institute of Child Health
IMR	Infant Mortality Rate
KMC	Kangaroo Mother Care
LBW	Low Birth Weight
LBWB	Low Birth Weight Babies
NMR	Neonatal Mortality Rate
NICU	Neonatal Intensive Care Unit
SD	Standard Deviation
WHO	World Health Organisation
ICMR	Indian council of medical research
NICUS	neonatal intensive care unit study

PART-I: DEMOGRAPHIC DATA

1. Father's Age
 - a) 20-22
 - b) 23-25
 - c) 26-35
2. Father's Education
 - a) No formal education
 - b) Primary School
 - c) Higher Secondary School
 - d) Graduate
3. Religion
 - a) Hindu
 - b) Muslim
 - c) Christian
 - d) Others
4. Father's occupation
 - a) Employed
 - b) Un employed
5. Type of family
 - a) Joint Family
 - b) Nuclear family
6. Type of residence
 - a) Rural
 - b) urban
7. Previous experience of handling preterm baby
 - a) Yes
 - b) No
8. Presence of any disease like
 - a) DM/HT
 - b) TB
 - c) Any systemic diseases/genetic disorder

9. You have any habits like, if yes since how many years
 - a) Smoking
 - b) Alcohol
 - c) Drug abuse
 - d) Nil
10. Preterm baby care learned from
 - a) Doctors
 - b) Nurses
 - c) Family members/Mass media
11. Income of the family is
 - a) Less than 5000
 - b) 5001-10,000
 - c) 10,001-15,000
12. source of information obtain from
 - a) Book
 - b) Mass media
 - c) relatives and friends.
13. Gestational age of the baby is
 - a) 28-30 weeks of gestation
 - b) 31-33 weeks of gestation
 - c) 34-37 weeks of gestation
14. Is there is any family history of preterm baby
 - a) Yes
 - b) No
15. Will you get permission/leave from your working place to take care of baby
 - a) Yes
 - No

KNOWLEDGE REGARDING PRETERM CARE

1. The average birth weight of the normal newborn is
 - a) 1500-2000gm
 - b) B.2000-2500gm
 - c) C.2500-3000gm
2. Preterm baby means
 - a) Born after 40 weeks of gestation
 - b) Born before 37 weeks of Gestation
 - c) Born after 42 Weeks of Gestation
3. The common complication which occur in preterm baby is
 - a) Hypothermia
 - b) Diarrhea
 - c) Increased weight
4. The best way to prevent preterm baby is
 - a) Proper immunization
 - b) Adequate antenatal management
 - c) Using of contraceptive device

KNOWLEDGE REGARDING FEEDING OF BABY

5. Exclusive breast feeding should be given
 - a) Upto 6 months
 - b) Upto 5 months
 - c) Upto 3 months
6. The frequency of breast feeding for the baby
 - a) Every 2 hr
 - b) When baby cries
 - c) Once in 5 hour

7. The best way to prevent regurgitation is
- a) Burping
 - b) Giving more feeds.
 - c) Place prone position immediately after feeding.
8. The correct method of feeding expressed breast milk is by
- a) Paladai feeding
 - b) Bottle feeding
 - c) Through syringe

KNOWLEDGE REGARDING THERMO REGULATION
(KANGAROO MOTHER CARE)

9. The common complication which occur in preterm baby is
- a) Hypothermia
 - b) Heat over the body and limbs
 - c) Baby will more active
10. In premature babies more amount of heat loss from
- a) Head
 - b) Feet
 - c) Abdomen
11. Kangaroo mother care is a method which prevents
- a) Infection
 - b) Hyperglycemia
 - c) Hypothermia
12. Kangaroo mother care can be given by
- a) All family members
 - b) Mother & Father only
 - c) Nurses only

KNOWLEDGE IN ASSISTING SKIN CARE OF THE PRETERM BABY

13. Nature of the Preterm baby's skin
 - a) Dry and Fragile
 - b) Silky Skin than new born baby
 - c) Like normal skin.
14. Suitable cloth for preterm baby's skin is
 - a) Soft cotton cloth
 - b) Silk cloth
 - c) Nylon cloth
15. The wet napkin should be changed
 - a) Immediately
 - b) After 1 -2hour
 - c) End of the day
16. Baby's clothes should be washed
 - a) Separately, with detergents and double rinsed
 - b) Should be washed with detergents using single rinse
 - c) Should be washed with antiseptic lotions

KNOWLEDGE REGARDING IN UMBILICAL CORD CARE

17. The cord stump develops and drive fall of between
 - a) 3-15 days
 - b) After 1 month
 - c) Soon after birth
18. Infection in umbilical cord will show the signs and symptoms of
 - a) Umbilical cord not fall for long time.
 - b) Blood in the cord or Discharge pus from the cord
 - c) dryness of the site

19. The umbilical cord to be kept clean by
- a) Apply green gram powder
 - b) Cow dung
 - c) No need to apply anything
20. Diapers should be placed
- a) Above the umbilical cord
 - b) Below the umbilical cord
 - c) Over the umbilical cord.

FATHER'S KNOWLEDGE REGARDING EYE CARE

21. The eyes should be cleaned with
- a) Clean with clean wet cloth
 - b) Clean with fingers
 - c) From outer to inner canthus with dry cloths.
22. Eyes should be cleaned from
- a) Inner canthus to outer canthus
 - b) Outer to inner canthus
 - c) Top to bottom
23. The practice is applying kajal is
- a) harmful to baby sight
 - b) beautification
 - c) prevent evil eye
24. If any eye discharge
- a) immediately seek medical intervention
 - b) apply self medication
 - c) apply breast milk in baby's eye.

KNOWLEDGE REGARDING ELIMINATION NEEDS OF THE PRETERM BABY

25. Adequacy of urine output can be assessed by
- a) No of times diaper changed
 - b) Seeing how many hour the baby is slept
 - c) Collect the urine in the bottle and see
26. The best kind of napkins use for the baby is
- a) cloth napkins
 - b) cotton silk /nylon napkins
 - c) Adhesive type napkin
27. If diaper is not changed for long time, babies will get
- a) Diaper rashes
 - b) Hyperthermia
 - c) Infection will not occur
28. The method of cleaning the baby after elimination is
- a) wipe with paper
 - b) use lukewarm water with soft cloth from upper to lower direction
 - c) wipe with dry cloth

KNOWLEDGE REGARDING PREVENTION OF INFECTION OF THE PRETERM BABY

29. The earliest sign of infection is
- a) Baby will be active
 - b) Baby will drink more milk.
 - c) High fever with dull baby
30. The best method to prevent infection is
- a) Proper hand washing before touch the baby
 - b) Daily bath
 - c) Do not cover the baby

31. The common practice which produce infection to baby is
- a) sampoo bath
 - b) Nose and mouth blowing by infected females
 - c) Sunlight exposer
32. The infection will reduced by
- a) Avoid exposure to infected person
 - b) Exposure to infected person
 - c) Giving out side shop milk

KNOWLEDGE REGARDING IMMUNIZATION

33. The importance of giving immunization is to
- a) prevent disease
 - b) Treat the disease
 - c) Cure the infection
34. Immunization should be started
- a) After weight gain of 5 Kg.
 - b) At the completion of 10th month
 - c) While come for follow up-one week after discharge.
35. The BCG vaccine is given to prevent the disease
- a) Tuberclosis(primary complex)
 - b) Jaundice
 - c) chicken pox
36. Poliomyelitis is prevented by the following vaccine
- a) BCG vaccine
 - b) Oral Polio vaccine
 - c) Hepatitis

KNOWLEDGE REGARDING FOLLOW UP CARE

37. The first month follow up for the preterm baby is
- a) 7 days once
 - b) once in a year
 - c) once in a month
38. The dangerous sign for baby to seek medical attention is
- a) Severe Respiratory distress
 - b) Having hiccups
 - c) Passing of yellowish stool
39. The breast feeding to be continued even if the baby is
- a) passing of stools after every feed
 - b) Having severe vomiting
 - c) While having fits
40. If the baby refuse to take breast feed continuously then
- a) Give cow's milk
 - b) Show to the doctor
 - c) Give natural medicine

நேர்காணல் படிவம்
சுய சமூக குறிப்பு

- 1) தந்தையின் வயது
அ) 20 - 22 ☐
ஆ) 23- 25 ☐
இ) 26 - 35 ☐
- 2) தந்தையின் கல்வித் தொகுதி
அ) படிக்கவில்லை ☐
ஆ) ஆரம்பக்கல்வி ☐
இ) மேல்நிலைக் கல்வி ☐
ஈ) சட்டப்படிப்பு ☐
- 3) மதம்
அ) இந்து ☐
ஆ) முஸ்லிம் ☐
இ) கிறித்துவர் ☐
ஈ) மற்றவை ☐
- 4) தந்தையின் வேலை விபரம்
அ) வேலைக்குச் செல்பவர் ☐
ஆ) வேலைக்குச் செல்லாதவர் ☐
- 5) குடும்ப வகை
அ) கூட்டுக் குடும்பம் ☐
ஆ) தனிக் குடும்பம் ☐
- 6) வாழ்விடம்/இருப்பிடம்
அ) கிராம பகுதி ☐
ஆ) நகரப் பகுதி ☐
இ) மற்ற மாநிலம் ☐
- 7) குறைமாத குழந்தைகளை வளர்ப்பதில் முன் அனுபவம் உள்ளவரா?
அ) ஆம் ☐
ஆ) இல்லை ☐

- 8) தந்தைக்கு கீழ்க்கண்ட நோய்கள் உள்ளனவா?
- அ) சர்க்கரை வியாதி / இரத்தக் கொதிப்பு ☐
- ஆ) காசநோய் ☐
- இ) பரம்பரை நோய்கள் / இருதய நோய்கள் ☐
- ஈ) நோய் எதுவும் இல்லை ☐
- 9) உங்களிடம் உள்ள பழக்கங்கள்
- அ) புகைப்பிடிப்பது ☐
- ஆ) மது அருந்துவது ☐
- இ) போதைப் பொருள் பழக்கம் ☐
- ஈ) எந்த பழக்கமும் இல்லை ☐
- 10) குறைமாதக் குழைந்தைகளை வளர்ப்பதைப் பற்றி தெரிந்துக் கொண்டது
- அ) மருத்துவர்கள் வாயிலாக ☐
- ஆ) செவிலியர் வாயிலாக ☐
- இ) வீட்டில் உள்ளவர்கள் / தொலைக் காட்சி மூலமாக ☐
- 11) குடும்பத்தின் வருமானம்
- அ) 5000 கீழ் ☐
- ஆ) 5001 - 10000 ☐
- இ) 10001 - 15000 ☐
- 12) குறைமாத குழைந்தைகள் பற்றிய தகவல் அறிந்த கொண்டது
- அ) புத்தகங்களிலிருந்து ☐
- ஆ) தொலைக்காட்சி மூலமாக ☐
- இ) உறவினர்கள் மற்றும் நண்பர்கள் மூலமாக ☐
- 13) குழைந்தையின் கர்ப்பக்கால வயது
- அ) 28 - 30 வாரங்கள் ☐
- ஆ) 31 - 33 வாரங்கள் ☐
- இ) 34 - 37 வாரங்கள் ☐
- 14) குடும்பத்தில் இதற்கு முந்தைய குறைமாத குழைந்தைகளின் விபரம்
- அ) ஆம் ☐
- ஆ) இல்லை ☐

15) குழந்தையை பராமரிக்க நீங்கள் வேலை செய்யுமிடத்தில் விடுப்பு அல்லது அனுமதி கிடைக்குமா?

அ) கிடைக்கும்

☐

ஆ) கிடைக்காது

☐

பகுதி - 2

தந்தையின் குறைமாத குழந்தைகள் பற்றிய அறிவு

1) நிறைமாத குழந்தையின் சாராசரி எடை

அ) 1500 - 2000 கிராம்

☐

ஆ) 2001 - 2500 கிராம்

☐

இ) 2501 - 3000 கிராம்

☐

2) குறைமாத குழந்தை என்பது

அ) 40 வாரத்திற்கு மேல் பிறப்பது

☐

ஆ) 37 வாரத்திற்குள் பிறப்பது

☐

இ) 38 - 39 வாரத்திற்குள் பிறப்பது

☐

3) பொதுவாக குறைமாத குழந்தைக்கு ஏற்படும் சிக்கல்களில் ஒன்று

அ) உடல் வெப்பநிலை குறைந்து போகுதல்

☐

ஆ) வயிற்றுப் போக்கு

☐

இ) எடை கூடியிருப்பது

☐

4) குறைமாத பிரசவத்தை தவிர்க்கும் முறை

அ) தடுப்பூசி பரிசோதனைகள் செய்து கொள்வது

☐

ஆ) கர்ப்பகால பரிசோதனைகள் செய்து கொள்வது

☐

இ) கருத்தடை சாதனங்களை உபயோகிப்பது

☐

தாய்ப்பால் ஊட்டுதல் பற்றிய ஆய்வு

5) தாய்ப்பால் மட்டும் கொடுக்கப்பட வேண்டியது

அ) முதல் ஆறு மாதம் வரை

☐

ஆ) முதல் ஐந்து மாதம் வரை

☐

இ) முதல் வருடம் வரை

☐

- 6) தாய்ப்பால் கொடுக்கவேண்டிய கால அளவு
- அ) இரண்டு மணி நேரத்திற்கு ஒரு முறை ☐
- ஆ) குழந்தை அமும்பொழுது மட்டும் ☐
- இ) ஐந்து மணி நேரத்திற்கு ஒரு முறை ☐
- 7) பால் கக்குவதை தடுக்க சிறந்த முறை
- அ) ஏப்பம் விடச் செய்தல் ☐
- ஆ) மேலும் பால் கொடுத்தல் ☐
- இ) பால் கொடுத்தவுடன் குப்புற படுக்க வைப்பது ☐
- 8) எடுக்கப்பட்ட தாய்ப்பால் கொடுக்கப்படும் சரியான முறை
- அ) பாலாடை மூலமாக ☐
- ஆ) பாட்டில் மூலமாக ☐
- இ) ஊசி மூலமாக ☐

உடல் வெப்ப நிலை பராமரிப்பு பற்றி அறிவு

- 9) உடல் வெப்பநிலை குறைந்து போவதை கண்டுபிடிப்பதற்கான முதல் அறிகுறி
- அ) உடலைவிட கைகால்கள் குளிர்ந்து போதல் ☐
- ஆ) கை மற்றும் பாதம் சூடாக இருப்பது ☐
- இ) குழந்தை சுறுசுறுப்பாக இருப்பது ☐
- 10) எதன் வழியாக குழந்தையின் உடல் வெப்பம் அதிகமாக வெளியேறும்
- அ) தலை வழியாக ☐
- ஆ) கால்கள் வழியாக ☐
- இ) வயிறு வழியாக ☐
- 11) கங்காரு தாய் பராமரிப்பு என்பது எதைத் தடுக்கிறது
- அ) தொற்றுநோய் வராமல் தடுப்பது ☐
- ஆ) அதிக அளவு சர்க்கரை அளவை குறைப்பது ☐
- இ) உடல் வெப்பம் குறைதலை தடுக்கிறது ☐
- 12) கங்காரு தாய் பராமரிப்பு யாரால் கொடுக்கப்படலாம்
- அ) தொற்று நோய் இல்லாத குடும்ப உறுப்பினர்கள் எல்லோராலும் ☐
- ஆ) தாய் மற்றும் தந்தையால் மட்டும் ☐
- இ) செவிலியர்களால் மட்டும் ☐

தோல் பராமரிப்பு பற்றிய அறிவு

- 13) குறைமாத குழந்தைகளின் தோல் எப்படி இருக்கும்
- அ) காய்ந்து சுருக்கத்துடன் இருக்கும் ☐
- ஆ) பளப்பளப்பாக இருக்கும் ☐
- இ) நல்ல நிலையில் இருக்கும் ☐
- 14) குறைமாத குழந்தைகளின் தோலுக்கு ஏற்ற ஆடை எது
- அ) மென்மையான பருத்தி ஆடை ☐
- ஆ) பட்டு ஆடை ☐
- இ) நைலான் ஆடை ☐
- 15) ஈரமான நாப்கீன்களை எப்போது மாற்றுவீர்கள்
- அ) ஈரமான உடன் ☐
- ஆ) ஈரமான 1 மணி நேரம் கழித்து ☐
- இ) இரவில் மட்டும் மாற்றலாம் ☐
- 16) குழந்தையின் ஆடைகளை எவ்வாறு துவைப்பீர்கள்
- அ) எல்லோர் துணியுடன் கலக்காமல் அழுக்கு நீக்கியில் துவைத்து இரண்டு முறை அலசுதல் ☐
- ஆ) அழுக்கை நீக்கியில் துவைத்து ஒரு முறை அலசுதல் ☐
- இ) கிருமி கொல்லி திரவத்தை கலந்துவைத்தல் ☐

தொப்புல் கொடி பாதுகாப்பு பற்றிய அறிவு

- 17) தொப்புல்கொடி எப்போது காய்ந்து விழும்
- அ) மூன்று நாட்களில் இருந்து பதினைந்து நாட்களுக்குள் ☐
- ஆ) 1 மாதம் கழித்து ☐
- இ) பிறந்தவுடன் ☐
- 18) தொப்புல்கொடி தொற்று ஏற்பட்டால் எப்படி கண்டுபிடிப்பது
- அ) தொப்புல் கொடி விழாமல் இருப்பது ☐
- ஆ) தொப்புல் கொடியில் இரத்தக்கசிவு / சீழ் வடிதல் ☐
- இ) தொப்புல் கொடி இடம் காய்ந்திருப்பது ☐

- 19) தொப்புல்கொடி இடத்தை எப்படி பாதுகாப்பீர்கள்
- அ) பாசிப்பயிறு பவுடர் தடவுதல் ☐
- ஆ) எண்ணெய் தடவுதல் ☐
- இ) எதுவும் தடவாமல் இருப்பது ☐

- 20) நாப்கினை எங்கு கட்டுவீர்கள்
- அ) தொப்புல்கொடிக்கு மேலே ☐
- ஆ) தொப்புல்கொடிக்கு கீழே ☐
- இ) தொப்புல்கொடியின் மேல் ☐

கண் பாதுகாப்பு பற்றிய அறிவு

- 21) குழந்தையின் கண்களை எப்படி துடைப்பீர்கள்
- அ) மென்மையான ஈரத்துணியால் உட்புறம் இருந்து
வெளிப்புறமாக துடைத்தல் ☐
- ஆ) வெளிப்புறத்தில் இருந்து உட்புறமாக துடைத்தல் ☐
- இ) கீழிலிருந்து மேலாக துடைத்தல் ☐

- 22) கண்களை எப்படி பாதுகாப்பீர்கள்
- அ) கண் மை போட்டு பாதுகாக்கலாம் ☐
- ஆ) கைகளால் துடைத்து பாதுகாக்கலாம் ☐
- இ) சுத்தமான, மென்மையான ஈரத்துணியால் துடைத்து
பாதுகாக்கலாம் ☐

- 23) கண் மை வைக்கும் பழக்கம்
- அ) குழந்தையின் கண்களுக்கு கெடுதல் ☐
- ஆ) அழகைக் கொடுக்கும் ☐
- இ) திருஷ்டி போகும் ☐

- 24) குழந்தையின் கண்களில் நீர்வடிந்தால் என்ன செய்ய வேண்டும்
- அ) உடனே மருத்துவரை அணுக வேண்டும் ☐
- ஆ) நாட்டு வைத்தியம் செய்யவேண்டும் ☐
- இ) தாய்ப்பாலை கண்ணில் ஊற்ற வேண்டும் ☐

உடல் கழிவு பற்றிய அறிவு

- 25) குழந்தையின் சிறுநீரக அளவை எப்படி கணிப்பீர்கள்
- அ) எத்தனை முறை டயப்பர் நனைகிறது என்பதை வைத்து ☐
- ஆ) எத்தனை நேரம் தூங்குகிறது என்பதைப் பொறுத்தது ☐
- இ) சிறுநீரகத்தின் நிறத்தை பாட்டிலில் பிடித்து பார்ப்பதன் மூலம் ☐
- 26) எந்த வகை நாப்கீன்கள் ஈரத்தை நன்றாக உறிஞ்சி தோலைப் பாதுகாக்கும்
- அ) பருத்தியால் ஆன நாப்கீன்கள் ☐
- ஆ) நைலான் / பட்டுப் போன்ற வகை நாப்கீன்கள் ☐
- இ) ஒட்டும் வகை நாப்கீன்கள் ☐
- 27) ஈரமான நாப்கீன்களை மாற்றவிட்டால்
- அ) டயப்பர் ராஸ் என்ற தோல் புண்கள் ஏற்படும் ☐
- ஆ) குழந்தையின் உடல் வெப்பம் அதிகமாகும் ☐
- இ) நோய் தொற்று ஏற்படாது ☐
- 28) குழந்தையின் பிறப்புறுகளை துடைக்கும் முறை
- அ) பேப்பர் கொண்டு துடைக்க வேண்டும் ☐
- ஆ) வெதுவெதுப்பான தண்ணீரைக் கொண்டு மிருதுவான துணியால் மேலிருந்து கீழாக ஒரே முறை துடைத்து எடுக்க வேண்டும் ☐
- இ) காய்ந்த துணியால் துடைக்க வேண்டும் ☐

நோய் தொற்று வராமல் தடுப்பதை பற்றி அறிவு

- 29) குழந்தைக்கு நோய் தொற்று உள்ளதற்கான அறிகுறி என்ன
- அ) குழந்தை சுறுசுறுப்பாக இருக்கும் ☐
- ஆ) அதிக பால் அருந்தும் ☐
- இ) அதிக காய்ச்சல் மற்றும் சோர்ந்து இருக்கும் ☐
- 30) நோய்த் தொற்று வராமல் இருப்பதற்கு செய்யவேண்டியது
- அ) கைகளை நன்றாக சோப்புப் போட்டு கழுவிய பின் குழந்தையை தூக்குவது ☐
- ஆ) தினமும் குளிப்பாட்டுவது ☐
- இ) குழந்தையை மூடாமல் திறந்த நிலையில் வைப்பது ☐

- 31) எந்த நடவடிக்கையால் நோய்த் தொற்று குழந்தைக்கு உடனே வரும்
- அ) சோப்பு போட்டு குளிப்பாட்டுதல் ☐
- ஆ) குளிப்பாட்டும் போது வாய் மற்றும் மூக்கினை ஊதிச் சளி எடுப்பவர் நோய்த் தொற்று உள்ளவராக இருந்தால் ☐
- இ) சூரிய வெளிச்சம் படுவதால் ☐
- 32) நோய்த் தொற்று வராமல் தடுக்கும் வழி
- அ) நோய் தொற்று உள்ளவர்களிடம் குழந்தையை கொடுக்கமாலைருப்பது ☐
- ஆ) நோய்த் தொற்று உள்ளவர்களிடம் கொடுப்பது ☐
- இ) கடையில் வாங்கி கடைப்பால் கொடுப்பது ☐

தடுப்பூசி போடுதல் பற்றிய அறிவு

- 33) தடுப்பூசி போடுவதன் அவசியம்
- அ) இது நோய் வராமல் தடுக்க உதவும் ☐
- ஆ) வந்த நோயை குணமாக்கும் ☐
- இ) நோய் தொற்று உள்ளவர்களுக்கு சிகிச்சை அளிக்கும் ☐
- 34) குறைமாத குழந்தைக்கு நோய்த் தடுப்பு ஊசி எப்பொழுது போடவேண்டும்.
- அ) குழந்தையின் எடை 5 கிலோ ஆன பிறகு ☐
- ஆ) பத்து மாதங்கள் முடிந்த பிறகு ☐
- இ) டிஸ்சார்ஜ் ஆகி ஒரு வாரம் கழித்து வரும்போது மருத்துவரின் பரிந்துரைப்படி போடவேண்டும் ☐
- 35) B.C.G (தோல் ஊசி) தடுப்பூசி எந்த நோயைத் தடுக்கும்
- அ) காச நோய் (குழந்தை காசநோய்) ☐
- ஆ) மஞ்சள் காமாலை ☐
- இ) அம்மை நோய் ☐
- 36) இளம்பிள்ளை வாதம் தடுக்க போடப்படும் தடுப்பூசி எது
- அ) B.C.G. (தோல் ஊசி) ☐
- ஆ) போலியோ சொட்டு மருந்து ☐
- இ) மஞ்சள்காமாலை தடுப்பூசி ☐

தொடர் பராமரிப்பு பற்றி ஆய்வு

- 37) முதல் மாத தொடர் பராமரிப்பு
- அ) ஏழு நாட்களுக்கு ஒரு முறை ☐
- ஆ) ஒரு வருடத்திற்கு ஒரு முறை ☐
- இ) ஒரு மாதத்திற்கு ஒரு முறை ☐
- 38) எந்த அறிகுறி இருந்தால் குழந்தையை உடனடியாக மருத்துவரிடம்
கொண்டுவர வேண்டும்
- அ) மூச்சு விட திணறுதல் ☐
- ஆ) விக்கல் வருதல் ☐
- இ) மஞ்சலாக மலம் கழித்தல் ☐
- 39) தாய்ப்பால் கொடுப்பதை இதற்குப் பின்னும் தொடரலாம்
- அ) ஒவ்வொரு முறை பால் குடித்தபின் மலம் கழித்தாலும் ☐
- ஆ) மூச்சு திணறல் இருக்கும்போதும் ☐
- இ) வலிப்பு நோய் வரும்போதும் ☐
- 40) குழந்தை தொடர்ச்சியாக தாய்ப்பால் குடிக்க மறுத்தல்
- அ) பசும்பால் கொடுக்கலாம் ☐
- ஆ) மருத்துவரிடம் எடுத்துச் செல்லவேண்டும் ☐
- இ) இயற்கை மருத்துவம் செய்யலாம் ☐

வரையறுக்கப்பட்ட கற்பித்தல் நிகழ்வு

தலைப்பு	குறைமாத குழந்தைகளின் தந்தையர்களுக்கு குறைமாத குழந்தை நலம் பேணல் பற்றிய அறிவுத்திறன் நிலைக்கான வரையறுக்கப்பட்ட நிகழ்ச்சியின் செயல்திறன்
பெறுநர் இடம்	குறை மாத குழந்தைகளின் தந்தையர்கள் பச்சிளம் குழந்தைகள் பிரிவு குழந்தை நல மருத்துவமனை, எழும்பூர், சென்னை- 8.
நேரம்	30-40 நிமிடங்கள்
கற்பிக்கும் முறை	விரைவுரையாடல் மற்றும் கலந்துரையாடல்
உதவிப்பொருள்	வரைபடம், கை ஏடு மற்றும் செய்து காட்டுதல், மடிகணிணி
மைய நோக்கம்	வரையறுக்கப்பட்ட கற்பித்தல் நிகழ்வு மூலமாக குறைமாத குழந்தைகளின் தந்தையர்கள் குறைமாத குழந்தை பேணலை பற்றி அறிந்து, அதற்கேற்ற அறிவுத்திறனை பெற்று குழந்தை பேணலின் மூலமாக குழந்தை இறப்பு மற்றும் குழந்தை நோய் சதவிகிதத்தை குறைக்க வேண்டும்.
துணை நோக்கங்கள்	வரையறுக்கப்பட்ட கற்பித்தல் நிகழ்வுக்குப்பின் குறைமாத குழந்தைகளின் தந்தையர் கீழ்க்கண்டவற்றை அறிந்து கடைப்பிடித்தல் வேண்டும்.

- குறைமாத குழந்தையைப் பற்றி விளக்குதல்
- குறைமாத குழந்தை பராமரிப்பின் நோக்கங்களை பட்டியலிடுதல்
- குறைமாத குழந்தை பராமரிப்பு பற்றி பல அம்சங்களை கலந்துரையாடல்

1. வெப்ப நிலை பராமரிப்பு
2. தாய்ப்பால் உண்டிடுதல்
3. தோல் பராமரிப்பு
4. தொப்புள் கொடி பராமரிப்பு
5. எண்ணெய் மசாஜ்
6. பயப்படக்கூடிய அறிகுறிகள்
7. மல, ஜல தூய்மை
8. தடுப்பூசி போடுதல்
9. நோய் தொற்றுதலை தடுத்தல்
10. தொடர் பராமரிப்பு முறை

சுயமுகவுரை

காலை வணக்கம், நான் சென்ன மருத்துவக் கல்லூரி, செவிலியர் கல்லூரியில் முதுகலை பிரிவில் இரண்டாம் ஆண்டு பயில்கிறேன். நான் குறைமாத குழந்தையைப் பற்றியும் மற்றும் வீட்டுச் சென்ற பிறகு தந்தைமார்கள் குழந்தையை எப்படி பாதுகாப்பாக பேணல் வேண்டும் என்பதைப் பற்றியும் கலந்துரையாட வந்துள்ளேன். தயவு கூர்ந்து இந்த விளக்க உரையில் பங்கேற்று, உரையின் இறுதியில் ஏதேனும் சந்தேகங்கள் இருப்பின் கேட்டு தெளிவு பெறவும்.

வ. எண்	துணை நோக்கங்கள்	பொருளடக்கம்	ஆசிரியரின் செயல்பாடு	தாய்மார்களின் செயல்பாடு
1.	குறைமாத குழந்தையைப்பற்றி விளக்குதல்	<p>வரையறை</p> <p>கர்ப்ப காலத்தின் 37வது வாரத்திற்கு முன்பு பிறக்கும் மற்றும் எடை 25 கிலோ கிராமுக்கு குறைவாக (எடை குறைந்த குழந்தை) இருந்ததால் குழந்தை மாத குழந்தை என்று வரையறுக்கப்படுகிறது.</p> <p>நிறைமாத குழந்தையின் சரியான எடை 2.5 - 3 கிலோ.</p> <p>முன்குறி காரணிகள்</p> <p>குறைமாத குழந்தை பிறப்பிற்கான முன் காரணிகள்</p> <ol style="list-style-type: none"> சமூக பொருளாதார காரணிகள் <ul style="list-style-type: none"> குறைவான சத்துணவு/ சத்துக் குறை உணவு இரத்த சோகை மற்றும் அதிகமான வேளைப்பளு தந்தைக்குறிய காரணிகள் <ul style="list-style-type: none"> தாயின் வயது 16க்கு கீழும் மற்றும் 30க்கு மேலும் உயரம் குறைவு தாயை பாதிக்கும் மகப்பேறு நோய்கள் <p>அதிகமாக பனிநீர் இருத்தல்</p> <p>கர்ப்பகால இரத்தக்கொதிப்பு</p> குழந்தைக்குறிய காரணிகள் 	<p>எடை குறைந்த குழந்தை என்றால் என்ன?</p> <p>விளக்கமளித்தல்</p>	<p>விடையளித்தல்</p> <p>கவனித்தல்</p>

வ. எண்	துணை நோக்கங்கள்	பொருளடக்கம்	ஆசிரியரின் செயல்பாடு	தாய்மார்களின் செயல்பாடு
		<ul style="list-style-type: none"> பிறவி குறைபாடு மற்றும் தொற்றுநோய் <p>தடுக்கும் முறைகள்</p> <p>போதுமான கர்ப்பகால சத்துணவு மற்றும் தொடர்ச்சியான கர்ப்பகால கவனிப்பு முறைகள் ஆகியவை குறைமாத குழந்தை பிறப்பை தடுப்பதற்கான சிறந்த வழிகளாகும்.</p>		
2.	குறைமாத குழந்தை பராமரிப்பின் நோக்கத்தை வரிசைப்படுத்துதல்	<p>குறைமாத குழந்தை பராமரிப்பின் நோக்கங்கள்</p> <ol style="list-style-type: none"> குழந்தை உடல் வெப்பநிலை சீராக வைத்தல். சத்துணவு தொற்றுநோய் வராமல் தடுத்தல் ஏதாவது குறிப்பிட்ட தொற்று நோய்க்கான அறிகுறி தென்படுகிறதா என தொடர்ந்து கவனித்தல் 	விளக்கமளித்தல்	கவனித்தல்
3.	குறைமாத குழந்தை பராமரிப்பு பற்றி கலந்துரையாடல்	<p>குறைமாத குழந்தை வெப்பநிலை வெப்பநிலை பராமரிப்பு</p> <p>குறைமாதத்தில் பிறந்த குழந்தைகள் உடல் வெப்பநிலை மாற்றத்திற்கு வெகு சீக்கிரம் உட்படுகிறார்கள். தோலின் அடியில் உள்ள கொழுப்பு சத்து குறைவால் அதிக வெப்பம் (Hyperthermia) மற்றும் திடீரென்று வெப்பம் குறைதல் (Hypothermia) போன்றவை எளிதாக ஏற்படுகிறது.</p>	வரைபடம் மூலம் விளக்குதல் மற்றும் செய்து காட்டுதல்	கவனித்தல்

வ. எண்	துணை நோக்கங்கள்	பொருளடக்கம்	ஆசிரியரின் செயல்பாடு	தாய்மார்களின் செயல்பாடு
		<p>வெப்பநிலை குறைவதால் ஏற்படும் முதல் அறிகுறி, குழந்தையின் உடல்பகுதி சூடாகவும், உள்ளங்கால், மற்றும் உள்ளங்கை முதலில் குளிர்ந்தும் அதைத் தொடர்ந்து நீலநிறமாக மாறுதல் ஆகும்.</p> <p>குழந்தையை, வெதுவெதுப்பான அறையில் நல்ல சுத்தமான துணியால் சுற்றி வைக்கப்பட வேண்டும். குழந்தையின் உடலிலிருந்து அதிகமான வெப்பம் தலை வழியாக வெளியேறுவதால் தலையை குல்லாய் கொண்டும், கை மற்றும் கால்களை உறைகளாலும் மூடி, அதிக கவனம் எடுக்க வேண்டும். தாய் தன் குழந்தையை உடலோடு (தோல்- தோல் சார்ந்து) சேர்த்தும் வெப்பநிலையை சீராக வைக்கலாம். அதற்கு கங்காரு தாய் பராமரிப்பு முறை என்று பெயர்.</p>		
		<p>கங்காரு தாய் பராமரிப்பு முறை</p> <p>குழந்தையை தாயின் மார்க்கங்களுக்கு இடையே நேரான நிலையில் வைத்து, அதன் தலையை மூட்டு முட்டாத வண்ணம் ஒருபுறமாக திருப்பி வைக்க வேண்டும்.</p> <p>குழந்தை ஆடையின் முன் பகுதி திறந்துவிடப்படும், கை மற்றும் கால்கள் உறைகளாலும், தலை குல்லாயாலும், மூடப்பட்டிருக்க வேண்டும்.</p>	கங்காரு தாய் பராமரிப்பு முறை என்றால் என்ன?	விடையளித்தல் மற்றும் கவனித்தல்

வ. எண்	துணை நோக்கங்கள்	பொருளடக்கம்	ஆசிரியரின் செயல்பாடு	தாய்மார்களின் செயல்பாடு
		இந்த முறை பராமரிப்பை 24 மணி நேரமும் தொடரலாம். குறைந்தது 2 மணி நேரமாவது தொடர்ச்சியாக இருக்க வேண்டும். தாயிற்கு ஓய்வு தேவைப்படும் நேரங்களில் தந்தை, பாட்டி, தாத்தா மற்றும் குடும்ப உறுப்பினர்கள் அனைவரும் இந்த முறை மூலம் குழந்தையின் வெப்பநிலையை பாதுகாக்கலாம்.		
		<p>தாய்ப்பால் ஊட்டுதல்</p> <p>தாய்ப்பால் ஊட்டுதல் என்பது குழந்தைகளுக்கு நேரடியாக தாயின் மாம்பகங்களில் இருந்து பால் கொடுக்கப்படுவதாகும்.</p> <p>தாய்ப்பால் ஊட்டுதலின் முக்கிய நன்மைகள்</p> <ol style="list-style-type: none"> 1. எளிதில் கிடைக்கும் 2. தொற்று நோய் கிருமிகள் கிடையாது 3. தாயிடம் பாசப்பிணைப்பை ஏற்படுத்துகிறது 4. ஒவ்வாமையிலிருந்து காக்கிறது <p>குறைந்த அளவுள்ள கொலஸ்புரம் எனப்படும் இளமஞ்சள் நிறப்பால் அதிக அளவு புரதம் குறைந்த கொழுப்பு மற்றும் கார்போஹைடிரேட் கொண்டதாகும். தாய் குழந்தை முதல் ஆறு மாதம் வரை தாய்ப்பால் மட்டுமே கொடுக்க வேண்டும். (i.e. Exclusive Breast Feeding) சர்க்கரை நீர், வெல்ல நீர், தேன் மற்றும் கழுதைப்பால் ஆகியவற்றை கொடுப்பதைத் தவிர்க்க வேண்டும்.</p>	விளக்கமளித்தல்	கவனித்தல்

வ. எண்	துணை நோக்கங்கள்	பொருளடக்கம்	ஆசிரியரின் செயல்பாடு	தாய்மார்களின் செயல்பாடு
		<p>தந்தை கீழ்க்கண்டவற்றில் கவனம் செலுத்த வேண்டும்</p> <ol style="list-style-type: none"> குறைமாத குழந்தைக்கு ஒவ்வொரு இரண்டு மணி நேரத்திற்கு ஒரு முறை தாய்ப்பால் கொடுக்க வேண்டும். குழந்தை தூங்கிக்கொண்டிருந்தாலும் தூண்டுதல் மூலம் எழுப்பி பால் கொடுக்க வேண்டும். குறைமாத குழந்தையின் உறிஞ்சும் திறன் மந்தமாக இருந்தாலோ, உறிஞ்சமுடியாமல் இருந்தாலோ மாற்று முறையாக பாலாடை மூலம் பாலூட்டலாம். தாயிடமிருந்து எடுக்கப்பட்ட தாய்ப்பாலை 4 முதல் 6 மணி நேரம் 28°C to 30°C அறை வெப்பநிலையில் பாதுகாக்கலாம். தாயிடமிருந்து எடுக்கப்பட்ட தாய்ப்பாலை பாலாடை மூலமாக குழந்தைகளுக்கு கொடுக்கலாம். பாலூட்டும் முன் பாலாடையை கொதிக்கும் நீரில் கொதிக்க வைக்க வேண்டும். பாலூட்டிய பிறகு குழந்தையின் முதுகில் லேசாக தட்டி, காற்று வெளியேறுமாறு செய்வதன் மூலம் குழந்தை பால் கக்குவதைத் தடுக்கலாம். அதன் பிறகு குழந்தையை வலதுபுறமாக சிறிது நேரம் படுக்க வைக்க வேண்டும். 	தாய்ப்பால் கொடுக்கும் முறை மற்றும் பாலாடை மூலம் கொடுக்கும் முறையை செய்து காட்டுதல்	கவனித்தல்
		<p>தடுப்பூசி போடுதல்</p> <p>நோய் வராமல் தடுப்பதே தடுப்பூசி போடுதலின் முக்கியத்துவமாகும். மருத்துவரின் ஆலோசனைப்படி தடுப்பூசி போட தொடங்க வேண்டும். குழந்தைக்கு தடுப்பூசி போடும் முதல் நாளிலிருந்து தான் தடுப்பூசி அட்டவணையை பின்பற்ற வேண்டும்.</p>		

வ. எண்	துணை நோக்கங்கள்	பொருளடக்கம்	ஆசிரியரின் செயல்பாடு	தாய்மார்களின் செயல்பாடு										
		<p>தடுப்பூசி அட்டவணை</p> <table border="1"> <thead> <tr> <th>நாள்</th> <th>தடுப்பூசி</th> </tr> </thead> <tbody> <tr> <td>0-7 நாள்</td> <td>பி.ஜி.சி (தோல் ஊசி) இளம் பிள்ளைவாத சொட்டுமருந்து (0 Dose) அளித்தல் மஞ்சள் காமாலை தடுப்பூசி (1 Dose)</td> </tr> <tr> <td>6-8 வாரம்</td> <td>தொண்டை அடைப்பான், இராண ஜன்னி, கக்குவான் இருமல், இளம்பிள்ளைவாத சொட்டுமருந்து (1 Dose) மஞ்சள் காமாலை தடுப்பூசி (11 Dose)</td> </tr> <tr> <td>10-12 வாரம்</td> <td>தொண்டை அடைப்பான், இராண ஜன்னி, கக்குவான் இருமல், இளம்பிள்ளைவாத சொட்டுமருந்து (1 Dose)</td> </tr> <tr> <td>14-16 வாரம்</td> <td>தொண்டை அடைப்பான், இராண ஜன்னி, கக்குவான் இருமல், இளம்பிள்ளைவாத சொட்டுமருந்து (11 Dose)</td> </tr> </tbody> </table> <p>தோல் ஊசி, காசநோய் வராமல் தடுக்கிறது. தோல் ஊசி போட்டபின் தைலை தேய்த்துவிடக் கூடாது.</p> <p>தொப்புல்கொடியில், தொற்றுநோயின் அறிகுறி இருக்கும்போது குளிப்பாட்டுதலை தவிர்க்க வேண்டும்.</p>	நாள்	தடுப்பூசி	0-7 நாள்	பி.ஜி.சி (தோல் ஊசி) இளம் பிள்ளைவாத சொட்டுமருந்து (0 Dose) அளித்தல் மஞ்சள் காமாலை தடுப்பூசி (1 Dose)	6-8 வாரம்	தொண்டை அடைப்பான், இராண ஜன்னி, கக்குவான் இருமல், இளம்பிள்ளைவாத சொட்டுமருந்து (1 Dose) மஞ்சள் காமாலை தடுப்பூசி (11 Dose)	10-12 வாரம்	தொண்டை அடைப்பான், இராண ஜன்னி, கக்குவான் இருமல், இளம்பிள்ளைவாத சொட்டுமருந்து (1 Dose)	14-16 வாரம்	தொண்டை அடைப்பான், இராண ஜன்னி, கக்குவான் இருமல், இளம்பிள்ளைவாத சொட்டுமருந்து (11 Dose)	கையேடு மூலமாக விளக்கவுரை அளித்தல்	கவனித்தல்
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வ. எண்	துணை நோக்கங்கள்	பொருளடக்கம்	ஆசிரியரின் செயல்பாடு	தாய்மார்களின் செயல்பாடு
		<p>பிறப்புறுப்புகளின் பராமரிப்பு</p> <p>பிறப்புறுப்புகள் சிறுநீர் மற்றும் மலம் மூலம் அழுக்கடைகின்றன. குழந்தை சிறுநீர் அல்லது மலம் கழித்த பின் உடனே சுத்தம் செய்ய வேண்டும்.</p> <p>துணியை நீக்கிய பின் கீழ்பகுதியை ஈரமான பஞ்சு அல்லது மிருதுவான துணியால் சுத்தம் செய்ய வேண்டும். அந்த பகுதி மிருதுவானதால், மென்மையான துணியைக்கொண்டு சுத்தம் செய்ய வேண்டும்.</p> <p>பெண் குழந்தைகளுக்கு கீழ்பகுதியை சுத்தம் செய்யும்போது முன்பகுதியிலிருந்து பின் பகுதியை துடைக்க வேண்டும். இதனால் சிறுநீர் துவாரம் மற்றும் பிறப்புறுப்பில் கழிவுகள் சேர்வதை தடுக்கலாம். பிறப்புறுப்புகளில் பவுடர் போட தேவையில்லை.</p>	பராமரிப்பு முறையை செய்து காட்டுதல்	கவனித்தல்
		<p>தொடர் பராமரிப்பு</p> <p>முதல் ஒரு மாதத்திற்கு 7 நாட்களுக்கு ஒருமுறை மருத்துவமனைக்கு வர வேண்டும். குழந்தை பால் குடிப்பதில் மந்தமாக இருந்தாலோ அல்லது குடிக்காமல் இருந்தாலோ குழந்தையை மருத்துவமனைக்கு கொண்டுவர வேண்டும்.</p> <p>மருத்துவ உதவியை நாட வேண்டிய அபாயகரமான நேரம், குழந்தைக்கு மூச்சு விடுவதில் சிரமம் இருத்தல், குழந்தையை அலச்சியப்படுத்தாமல் உடனடியாக மருத்துவமனைக்கு எடுத்துச்செல்ல வேண்டும்.</p>	விளக்கமளித்தல்	கவனித்தல்

வ. எண்	துணை நோக்கங்கள்	பொருளடக்கம்	ஆசிரியரின் செயல்பாடு	தாய்மார்களின் செயல்பாடு
		<p>போலியோ சொட்டுமருந்து வாய் வழியாக கொடுப்பதன் மூலம் இளம்பிள்ளைவாத நோய் வராமல் தடுக்கலாம். போலியோ சொட்டுமருந்து போட்டபின் குழந்தைக்கு உடனடியாக பால் கொடுக்கலாம்.</p> <p>இந்த தடுப்பூசிகள் எந்தவிதமான எதிர் விளைவுகளையும் குறைமாத குழந்தைக்கு ஏற்படுத்தாது.</p>		
		<p>தொற்றுநோய்களிலிருந்து தடுத்தல்</p> <p>குறைமாத குழந்தைகளை தொற்றுநோய்கள் எளிதில் விரைவாக தாக்கும். குழந்தைகளை தொடுவதற்கு முன்பும், பாலூட்டுவதற்கு முன்பும் கைகளை நன்றாக சோப்பு போட்டு கழு வேண்டும்.</p> <p>அறை தூசியில்லாமல், மிதமான வெப்பத்துடன் இருக்க வேண்டும். நோய் தொற்று உள்ளவர்களிடம் குழந்தை பழகுவதை தவிர்க்கவும்.</p>	விளக்கமளித்தல்	கவனித்தல்
		<p>தோல் பராமரிப்பு</p> <p>1. மென்மையான சோப் உபயோகிக்க வேண்டும். அதிக வாசனையுள்ள அழகு சாதனங்களை தவிர்க்க வேண்டும்.</p> <p>2. மற்றவர்கள் துணியோடு கலந்துவிடாமல் குழந்தையின் துணிகளை தனியாக துவைத்து சோப்பின் அடையாளம் இல்லாமல் பலமுறை அலசப்படவேண்டும்.</p>		

வ. எண்	துணை நோக்கங்கள்	பொருளடக்கம்	ஆசிரியரின் செயல்பாடு	தாய்மார்களின் செயல்பாடு
		3. தேவையில்லாத, தோல் திரவியம் மற்றும் பவுடரை குழந்தையின் சருமத்தின் மேல் போடுவதை தவிர்க்க வேண்டும்.		
		<p>கண் பராமரிப்பு</p> <p>சுத்தமான கொதிக்க வைத்து, ஆறவைத்த நீரில் பஞ்சை நனைத்து ஒவ்வொரு கண்ணும் ஒரு பஞ்சை கொண்டு சுத்தம் செய்யப்பட வேண்டும்.</p> <p>கண்ணின் முன் உள் பக்கத்திலிருந்து வெளிப்பக்கமாக ஒரே ஒரு முறை துடைத்து சுத்தம் செய்ய வேண்டும். தொற்று நோயிலிருந்து தடுக்க கண்களுக்கு கண் மை இடுவதையும் மற்றும் முகப்பவுடர் போடுவதையும் தவிர்க்க வேண்டும்.</p>	கண் பராமரிப்பு முறையை செய்து காட்டுதல்	கவனித்தல்
		<p>தொப்புள் பராமரிப்பு</p> <p>குழந்தை பிறந்த 5 நாளிலிருந்து 10 நாட்களுக்குள் தொப்புள் கொடி காய்ந்து விழுந்துவிடும். அதற்கு மருந்து போட தேவையில்லை. தினமும் அப்பகுதியை சுத்தமாக வைத்து இருந்தாலே போதுமானது.</p> <p>தொப்புள் மேல் எண்ணெயோ, பவுடரோ, நெய்யோ அல்லது பசுவின் சாணமோ வைக்கக்கூடாது. தொப்புளைச் சுற்றி சிவந்திருந்தாலோ, கசிவு இருந்தாலோ அல்லது வெப்பம் இருந்தாலோ அது தொப்புள் கொடி தொற்றுநோயின் அறிகுறி. அதற்கு மருத்துவரை அணுக வேண்டும்.</p>		

